



**CONESTOGA-ROVERS
& ASSOCIATES**

14496 Sheldon Road, Suite 200, Plymouth, Michigan 48170
Telephone: (734) 453-5123 Fax: (734) 453-5201
www.CRAworld.com

March 14, 2014

Reference No. 012607

Ms. Tessy Jose
City of Detroit
Water and Sewerage Department
Industrial Waste Control Division
303 S. Livernois Avenue
Detroit, Michigan 48209

Dear Ms. Jose:

Re: DWSD Semi-Annual Report
(September 2013 through February 2014)
12950 Eckles Road
Livonia, Michigan 48150
Permit No.: SD6-94508

Conestoga-Rovers & Associates, Inc. (CRA) is providing the attached documents for the reporting requirements of Special Discharge Permit SD6-94508 for the period of September 2013 through February 2014.

Special Discharge Permit SD6-94508 was issued in June 2011 and is effective July 1, 2011 through June 30, 2015.

SECTION D: REPORTING REQUIREMENTS

- Reporting Period: September 1, 2013 to February 28, 2013
- Dates of Sampling: September 11, 2013; October 16, 2013; November 20, 2013; December 18, 2013; January 29, 2014; and February 12, 2014
- All samples were collected from the effluent sampling port of Tank T12
- Total Monthly Discharges:
 - September 2013: 213,720
 - October 2013: 661,842
 - November 2013: 655,548
 - December 2013: 781,529
 - January 2014: 447,793
 - February 2014: 612,195

Equal
Employment Opportunity
Employer

REGISTERED COMPANY FOR
ISO 9001
ENGINEERING DESIGN



**CONESTOGA-ROVERS
& ASSOCIATES**

March 14, 2014

Reference No. 012607

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- Total Flow to Date: 150,882,614 gallons
- Signature of CRA's authorized representative who is knowledgeable of the remediation site's discharge

CRA certifies that the discharge complied with the permit discharge limits.

Please contact me at (734) 453-5123 if you require further information or clarification.

Yours truly,

CONESTOGA-ROVERS & ASSOCIATES

Christopher J. Meincke, P.E.

CM/ds/7/Det.
Encl.

cc: Dave Favero, RACER

SECTION D: REPORTING REQUIREMENTS/b) iii)**12950 Eckles Road****Livonia, MI 48150****Permit No.: SD6-94508****Maintenance Log - September 2013**

Date	Inspection Visits	Changes or Replacements of Treatment System	Samples Taken	Quantities of Groundwater Discharged / Day - GAL	Notes
09/01/13	None	None			
09/02/13	None	None	On-Site	3,331	
09/03/13	None	None	On-Site	16,468	
09/04/13	None	None	On-Site	12,646	
09/05/13	None	None	On-Site	16,582	
09/06/13	None	None	On-Site	13,918	
09/07/13	None	None			
09/08/13	None	None			
09/09/13	None	None	On-Site	2,334	
09/10/13	None	None	On-Site	14,795	
09/11/13	None	None	On-site & Sampled	19,252	
09/12/13	None	None	On-Site	27,659	
09/13/13	None	None	On-Site	19,127	
09/14/13	None	None			
09/15/13	None	None			
09/16/13	None	None			System down - control panel not working
09/17/13	None	None			System down - control panel not working
09/18/13	None	None			System down - control panel not working
09/19/13	None	None			System down - control panel not working
09/20/13	None	None			System down - control panel not working
09/21/13	None	None			
09/22/13	None	None			
09/23/13	None	None			System down - control panel not working
09/24/13	None	None			System down - control panel not working
09/25/13	None	None	On-Site	1,586	
09/26/13	None	None	On-Site	33,506	
09/27/13	None	None	On-Site	30,310	
09/28/13	None	None			
09/29/13	None	None			
09/30/13	None	None	On-Site	2,206	

Total Monthly Discharge (gal)

213,720

SECTION D: REPORTING REQUIREMENTS/b) iii)
12950 Eckles Road
Livonia, MI 48150
Permit No.: SD6-94508
Maintenance Log - October 2013

Date	Inspection Visits	Changes or Replacements of Treatment System	Samples Taken	Quantities of Groundwater Discharged / Day - GAL	Notes
10/01/13	None	None	On-Site	22,640	
10/02/13	None	None	On-Site	22,949	
10/03/13	None	None	On-Site	14,549	
10/04/13	None	None	On-Site	14,858	
10/05/13	None	None			
10/06/13	None	None			
10/07/13	None	None	On-Site	1,591	
10/08/13	None	None	On-Site	13,392	
10/09/13	None	None	On-Site	15,183	
10/10/13	None	None	On-Site	25,001	
10/11/13	None	None	On-Site		
10/12/13	None	None			
10/13/13	None	None			
10/14/13	None	None	On-Site	4,921	
10/15/13	None	None	On-Site	32,794	
10/16/13	None	None	On-site & Sampled	37,245	
10/17/13	None	None	On-Site	18,799	
10/18/13	None	None	On-Site	70,679	
10/19/13	None	None			
10/20/13	None	None			
10/21/13	None	None	On-Site	1,586	
10/22/13	None	None	On-Site	54,391	
10/23/13	None	None	On-Site	47,546	
10/24/13	None	None	On-Site	50,982	
10/25/13	None	None	On-Site	56,955	
10/26/13	None	None			
10/27/13	None	None			
10/28/13	None	None	On-Site	2,334	
10/29/13	None	None	On-Site	53,196	
10/30/13	None	None	On-Site	46,074	
10/31/13	None	None	On-Site	54,180	

Total Monthly Discharge (gal)

661,842

SECTION D: REPORTING REQUIREMENTS/b) iii)
12950 Eckles Road
Livonia, MI 48150
Permit No.: SD6-94508
Maintenance Log - November 2013

Date	Inspection Visits	Changes or Replacements of Treatment System	Samples Taken	Quantities of Groundwater Discharged / Day - GAL	Notes
11/01/13	None	None	On-Site	30,742	
11/02/13	None	None			
11/03/13	None	None			
11/04/13	None	None	On-Site	18,522	
11/05/13	None	None	On-Site	45,899	
11/06/13	None	None	On-Site	59,729	
11/07/13	None	None	On-Site	43,541	
11/08/13	None	None	On-Site	52,603	
11/09/13	None	None			
11/10/13	None	None			
11/11/13	None	None			System down - Compressor down
11/12/13	None	None			System down - Compressor down
11/13/13	None	None	On-Site	4,199	
11/14/13	None	None	On-Site	35,911	
11/15/13	None	None	On-Site		System down - power outage
11/16/13	None	None			
11/17/13	None	None			
11/18/13	None	None	On-Site	17,660	
11/19/13	None	None	On-Site	54,766	
11/20/13	None	None	On-site & Sampled	46,566	
11/21/13	None	None	On-Site	45,846	
11/22/13	None	None	On-Site	49,868	
11/23/13	None	None			
11/24/13	None	None			
11/25/13	None	None	On-Site	5,643	
11/26/13	None	None	On-Site	36,195	
11/27/13	None	None	On-Site	40,881	
11/28/13	None	None	On-Site	49,398	
11/29/13	None	None	On-Site	17,579	System down - High ORP chemical line froze
11/30/13	None	None			

Total Monthly Discharge (gal)

655,548

SECTION D: REPORTING REQUIREMENTS/b) iii)**12950 Eckles Road****Livonia, MI 48150****Permit No.: SD6-94508****Maintenance Log - December 2013**

Date	Inspection Visits	Changes or Replacements of Treatment System	Samples Taken	Quantities of Groundwater Discharged / Day - GAL	Notes
12/01/13	None	None			
12/02/13	None	None	On-Site		
12/03/13	None	None	On-Site	49,146	
12/04/13	None	None	On-Site	36,731	
12/05/13	None	None	On-Site	51,222	
12/06/13	None	None	On-Site	41,735	
12/07/13	None	None			
12/08/13	None	None			
12/09/13	None	None	On-Site	7,206	
12/10/13	None	None	On-Site	41,503	
12/11/13	None	None	On-Site	42,920	
12/12/13	None	None	On-Site	41,070	
12/13/13	None	None	On-Site	41,852	
12/14/13	None	None			
12/15/13	None	None			
12/16/13	None	None	On-Site	5,315	
12/17/13	None	None	On-Site	51,525	
12/18/13	None	None	On-site & Sampled	43,016	
12/19/13	None	None	On-Site	36,342	
12/20/13	None	None	On-Site	52,498	
12/21/13	None	None			
12/22/13	None	None			
12/23/13	None	None	On-Site	1,585	
12/24/13	None	None	On-Site	53,399	
12/25/13	None	None	On-Site	31,244	
12/26/13	None	None	On-Site	57,265	
12/27/13	None	None	On-Site	41,293	
12/28/13	None	None			
12/29/13	None	None			
12/30/13	None	None	On-Site	3,471	
12/31/13	None	None	On-Site	51,190	

Total Monthly Discharge (gal)

781,529

SECTION D: REPORTING REQUIREMENTS/b) iii)**12950 Eckles Road****Livonia, MI 48150****Permit No.: SD6-94508****Maintenance Log - January 2014**

Date	Inspection Visits	Changes or Replacements of Treatment System	Samples Taken	Quantities of Groundwater Discharged / Day - GAL	Notes
01/01/14	None	None	On-Site	29,491	
01/02/14	None	None	On-Site	43,985	
01/03/14	None	None			System down - PLC down
01/04/14	None	None			
01/05/14	None	None			
01/06/14	None	None			System down - PLC down
01/07/14	None	None			System down - PLC down
01/08/14	None	None			System down - PLC down
01/09/14	None	None			System down - PLC down
01/10/14	None	None			System down - PLC down
01/11/14	None	None			
01/12/14	None	None			
01/13/14	None	None			System down - PLC down
01/14/14	None	None			System down - PLC down
01/15/14	None	None			System down - PLC down
01/16/14	None	None			System down - PLC down
01/17/14	None	None			System down - PLC down
01/18/14	None	None			
01/19/14	None	None			
01/20/14	None	None			System down - PLC down
01/21/14	None	None			System down - PLC down
01/22/14	None	None	On-Site		
01/23/14	None	None	On-Site	22,533	
01/24/14	None	None	On-Site	40,842	
01/25/14	None	None		40,050	
01/26/14	None	None		49,585	
01/27/14	None	None	On-Site	45,576	
01/28/14	None	None	On-Site	48,987	
01/29/14	None	None	On-site & Sampled	36,578	
01/30/14	None	None	On-Site	50,653	
01/31/14	None	None	On-Site	39,512	

Total Monthly Discharge (gal)

447,793

SECTION D: REPORTING REQUIREMENTS/b) iii)
12950 Eckles Road
Livonia, MI 48150
Permit No.: SD6-94508
Maintenance Log - February 2014

Date	Inspection Visits	Changes or Replacements of Treatment System	Samples Taken	Quantities of Groundwater Discharged / Day - GAL	Notes
02/01/14	None	None			
02/02/14	None	None			
02/03/14	None	None	On-Site	9,120	
02/04/14	None	None	On-Site	30,276	
02/05/14	None	None	On-Site	50,751	
02/06/14	None	None	On-Site	5,505	
02/07/14	None	None	On-Site	35,789	
02/08/14	None	None			
02/09/14	None	None			
02/10/14	None	None	On-Site	2,169	
02/11/14	None	None	On-Site	60,736	
02/12/14	None	None	On-site & Sampled	39,801	
02/13/14	None	None	On-Site	42,978	
02/14/14	None	None	On-Site	45,187	
02/15/14	None	None			
02/16/14	None	None			
02/17/14	None	None			
02/18/14	None	None	On-Site	2,854	
02/19/14	None	None	On-Site	45,707	
02/20/14	None	None	On-Site	31,560	
02/21/14	None	None	On-Site	38,346	
02/22/14	None	None			
02/23/14	None	None			
02/24/14	None	None	On-Site	3,233	
02/25/14	None	None	On-Site	36,853	
02/26/14	None	None	On-Site	46,442	
02/27/14	None	None	On-Site	31,991	
02/28/14	None	None	On-Site	52,896	

Total Monthly Discharge (gal)

612,195

SECTION D: REPORTING REQUIREMENTS/b) iii)**12950 Eckles Road****Livonia, MI 48150****Permit No.: SD6-94508****Maintenance Log- ISCO Sample Analyses - September 2013**

	Permit Limits	5-11.5	3.98 mg/L	N/A	2.77 mg/L	
DATE	SAMPLE DATE	pH	(mg/L) NICKEL	(mg/L) HEX Cr	(mg/L) TOTAL Cr	NOTES
9/1/2013	9/1/2013					
9/2/2013	9/2/2013	8.05	0.10	0.00	0.35	
9/3/2013	9/3/2013	8.92	0.06	0.00	0.35	
9/4/2013	9/4/2013	9.15	0.06	0.00	0.35	
9/5/2013	9/5/2013	9.11	0.10	0.05	0.30	
9/6/2013	9/6/2013	9.00	0.10	0.05	0.50	
9/7/2013	9/7/2013					
9/8/2013	9/8/2013					
9/9/2013	9/9/2013	8.63	0.04	0.10	0.15	
9/10/2013	9/10/2013	9.67	0.03	0.10	0.20	
9/11/2013	9/11/2013	9.50	0.06	0.15	0.20	
9/12/2013	9/12/2013	9.64	0.06	0.00	0.10	
9/13/2013	9/13/2013	9.42	0.05	0.00	0.05	
9/14/2013	9/14/2013					
9/15/2013	9/15/2013					
9/16/2013	9/16/2013					System down - control panel not working
9/17/2013	9/17/2013					System down - control panel not working
9/18/2013	9/18/2013					System down - control panel not working
9/19/2013	9/19/2013					System down - control panel not working
9/20/2013	9/20/2013					System down - control panel not working
9/21/2013	9/21/2013					
9/22/2013	9/22/2013					
9/23/2013	9/23/2013					System down - control panel not working
9/24/2013	9/24/2013					System down - control panel not working
9/25/2013	9/25/2013	8.51	0.05	0.00	0.05	
9/26/2013	9/26/2013	9.69	0.09	0.00	0.15	
9/27/2013	9/27/2013	9.58	0.06	0.00	0.15	
9/28/2013	9/28/2013					
9/29/2013	9/29/2013					
9/30/2013	9/30/2013	8.56	0.04	0.00	0.10	

SECTION D: REPORTING REQUIREMENTS/b) iii)**12950 Eckles Road****Livonia, MI 48150****Permit No.: SD6-94508****Maintenance Log- ISCO Sample Analyses - October 2013**

	Permit Limits	5-11.5	3.98 mg/L	N/A	2.77 mg/L	
DATE	SAMPLE DATE	pH	(mg/L) NICKEL	(mg/L) HEX Cr	(mg/L) TOTAL Cr	NOTES
10/1/2013	10/1/2013	9.33	0.04	0.00	0.05	
10/2/2013	10/2/2013	9.52	0.06	0.00	0.00	
10/3/2013	10/3/2013	9.31	0.05	0.00	0.10	
10/4/2013	10/4/2013	9.35	0.04	0.00	0.15	
10/5/2013	10/5/2013					
10/6/2013	10/6/2013					
10/7/2013	10/7/2013	8.79	0.04	0.00	0.10	
10/8/2013	10/8/2013	9.32	0.05	0.00	0.11	
10/9/2013	10/9/2013	9.59	0.15	0.05	0.25	
10/10/2013	10/10/2013	9.39	0.08	0.00	0.10	
10/11/2013	10/11/2013					
10/12/2013	10/12/2013					
10/13/2013	10/13/2013					
10/14/2013	10/14/2013	8.77	0.08	0.00	0.10	
10/15/2013	10/15/2013	9.30	0.11	0.00	0.00	
10/16/2013	10/16/2013	9.32	0.07	0.00	0.05	
10/17/2013	10/17/2013	9.34	0.05	0.00	0.00	
10/18/2013	10/18/2013	9.30	0.08	0.00	0.10	
10/19/2013	10/19/2013					
10/20/2013	10/20/2013					
10/21/2013	10/21/2013	8.63	0.03	0.00	0.15	
10/22/2013	10/22/2013	9.52	0.07	0.00	0.00	
10/23/2013	10/23/2013	9.51	0.05	0.00	0.00	
10/24/2013	10/24/2013	9.57	0.07	0.00	0.00	
10/25/2013	10/25/2013	9.39	0.04	0.00	0.00	
10/26/2013	10/26/2013					
10/27/2013	10/27/2013					
10/28/2013	10/28/2013	8.65	0.04	0.00	0.00	
10/29/2013	10/29/2013	9.20	0.09	0.00	0.00	
10/30/2013	10/30/2013	9.37	0.10	0.00	0.00	
10/31/2013	10/31/2013	9.10	0.11	0.00	0.05	

SECTION D: REPORTING REQUIREMENTS/b) iii)

12950 Eckles Road

Livonia, MI 48150

Permit No.: SD6-94508

Maintenance Log- ISCO Sample Analyses - November 2013

	Permit Limits	5-11.5	3.98 mg/L	N/A	2.77 mg/L	
DATE	SAMPLE DATE	pH	(mg/L) NICKEL	(mg/L) HEX Cr	(mg/L) TOTAL Cr	NOTES
11/1/2013	11/1/2013	9.14	0.07	0.00	0.00	
11/2/2013	11/2/2013					
11/3/2013	11/3/2013					
11/4/2013	11/4/2013	8.44	0.05	0.00	0.10	
11/5/2013	11/5/2013	9.10	0.10	0.00	0.15	
11/6/2013	11/6/2013	9.10	0.13	0.05	0.15	
11/7/2013	11/7/2013	9.21	0.08	0.00	0.15	
11/8/2013	11/8/2013	8.97	0.13	0.00	0.15	
11/9/2013	11/9/2013					
11/10/2013	11/10/2013					
11/11/2013	11/11/2013					System down - Compressor down
11/12/2013	11/12/2013					System down - Compressor down
11/13/2013	11/13/2013	9.29	0.09	0.00	0.10	
11/14/2013	11/14/2013	9.24	0.13	0.00	0.05	
11/15/2013	11/15/2013					System down - power outage
11/16/2013	11/16/2013					
11/17/2013	11/17/2013					
11/18/2013	11/18/2013	9.44	0.04	0.00	0.10	
11/19/2013	11/19/2013	9.48	0.18	0.00	0.00	
11/20/2013	11/20/2013	9.42	0.15	0.00	0.00	
11/21/2013	11/21/2013	9.09	0.22	0.00	0.05	
11/22/2013	11/22/2013	9.24	0.17	0.00	0.00	
11/23/2013	11/23/2013					
11/24/2013	11/24/2013					
11/25/2013	11/25/2013	8.61	0.17	0.00	0.00	
11/26/2013	11/26/2013	9.22	0.09	0.00	0.15	
11/27/2013	11/27/2013	9.39	0.08	0.00	0.15	
11/28/2013	11/28/2013	9.38	0.08	0.00	0.05	
11/29/2013	11/29/2013	9.21	0.09	0.00	0.05	System down - High ORP chemical line froze
11/30/2013	11/30/2013					

SECTION D: REPORTING REQUIREMENTS/b) iii)**12950 Eckles Road****Livonia, MI 48150****Permit No.: SD6-94508****Maintenance Log- ISCO Sample Analyses - December 2013**

	Permit Limits	5-11.5	3.98 mg/L	N/A	2.77 mg/L	
DATE	SAMPLE DATE	pH	(mg/L) NICKEL	(mg/L) HEX Cr	(mg/L) TOTAL Cr	NOTES
12/1/2013	12/1/2013					
12/2/2013	12/2/2013	8.01	0.09	0.00	0.10	
12/3/2013	12/3/2013	8.93	0.06	0.00	0.15	
12/4/2013	12/4/2013	9.34	0.06	0.10	0.25	
12/5/2013	12/5/2013	9.11	0.07	0.05	0.20	
12/6/2013	12/6/2013	9.18	0.03	0.05	0.20	
12/7/2013	12/7/2013					
12/8/2013	12/8/2013					
12/9/2013	12/9/2013	8.35	0.03	0.00	0.25	
12/10/2013	12/10/2013	9.48	0.01	0.05	0.10	
12/11/2013	12/11/2013	9.45	0.04	0.05	0.20	
12/12/2013	12/12/2013	9.38	0.05	0.00	0.30	
12/13/2013	12/13/2013	9.25	0.04	0.00	0.10	
12/14/2013	12/14/2013					
12/15/2013	12/15/2013					
12/16/2013	12/16/2013	8.60	0.03	0.00	0.10	
12/17/2013	12/17/2013	9.57	0.03	0.50	0.65	
12/18/2013	12/18/2013	9.84	0.03	0.50	0.65	
12/19/2013	12/19/2013	9.56	0.04	0.25	0.35	
12/20/2013	12/20/2013	9.68	0.03	0.05	0.10	
12/21/2013	12/21/2013					
12/22/2013	12/22/2013					
12/23/2013	12/23/2013	9.14	0.03	0.00	0.05	
12/24/2013	12/24/2013	9.59	0.03	0.00	0.05	
12/25/2013	12/25/2013	9.47	0.04	0.00	0.05	
12/26/2013	12/26/2013	9.49	0.05	0.00	0.35	
12/27/2013	12/27/2013	9.50	0.08	0.00	0.10	
12/28/2013	12/28/2013					
12/29/2013	12/29/2013					
12/30/2013	12/30/2013	8.89	0.05	0.00	0.15	
12/31/2013	12/31/2013	9.31	0.06	0.00	0.10	

SECTION D: REPORTING REQUIREMENTS/b) iii)
12950 Eckles Road
Livonia, MI 48150
Permit No.: SD6-94508
Maintenance Log- ISCO Sample Analyses - January 2014

	Permit Limits	5-11.5	3.98 mg/L	N/A	2.77 mg/L	
DATE	SAMPLE DATE	pH	(mg/L) NICKEL	(mg/L) HEX Cr	(mg/L) TOTAL Cr	NOTES
1/1/2014	1/1/2014	9.52	0.05	0.00	0.15	
1/2/2014	1/2/2014	9.48	0.05	0.00	0.15	
1/3/2014	1/3/2014					System down - PLC down
1/4/2014	1/4/2014					
1/5/2014	1/5/2014					
1/6/2014	1/6/2014					System down - PLC down
1/7/2014	1/7/2014					System down - PLC down
1/8/2014	1/8/2014					System down - PLC down
1/9/2014	1/9/2014					System down - PLC down
1/10/2014	1/10/2014					System down - PLC down
1/11/2014	1/11/2014					
1/12/2014	1/12/2014					
1/13/2014	1/13/2014					System down - PLC down
1/14/2014	1/14/2014					System down - PLC down
1/15/2014	1/15/2014					System down - PLC down
1/16/2014	1/16/2014					System down - PLC down
1/17/2014	1/17/2014					System down - PLC down
1/18/2014	1/18/2014					
1/19/2014	1/19/2014					
1/20/2014	1/20/2014					System down - PLC down
1/21/2014	1/21/2014					System down - PLC down
1/22/2014	1/22/2014	8.70	0.20	0.00	0.10	
1/23/2014	1/23/2014	8.87	0.20	0.00	0.20	
1/24/2014	1/24/2014	8.99	0.13	0.00	0.65	
1/25/2014	1/25/2014	9.06	0.10	0.00	0.05	
1/26/2014	1/26/2014	9.04	0.22	0.00	0.00	
1/27/2014	1/27/2014	9.07	0.12	0.00	0.00	
1/28/2014	1/28/2014	9.12	0.22	0.00	0.05	
1/29/2014	1/29/2014	9.21	0.10	0.00	0.05	
1/30/2014	1/30/2014	9.20	0.10	0.00	0.00	
1/31/2014	1/31/2014	9.24	0.10	0.00	0.05	

SECTION D: REPORTING REQUIREMENTS/b) iii)**12950 Eckles Road****Livonia, MI 48150****Permit No.: SD6-94508****Maintenance Log- ISCO Sample Analyses - February 2014**

	Permit Limits	5-11.5	3.98 mg/L	N/A	2.77 mg/L	
DATE	SAMPLE DATE	pH	(mg/L) NICKEL	(mg/L) HEX Cr	(mg/L) TOTAL Cr	NOTES
2/1/2014	2/1/2014					
2/2/2014	2/2/2014					
2/3/2014	2/3/2014	8.74	0.10	0.00	0.05	
2/4/2014	2/4/2014	9.08	0.10	0.10	0.30	
2/5/2014	2/5/2014	9.24	0.17	0.05	0.20	
2/6/2014	2/6/2014	9.05	0.10	0.05	0.40	
2/7/2014	2/7/2014	9.52	0.11	0.05	0.20	
2/8/2014	2/8/2014					
2/9/2014	2/9/2014					
2/10/2014	2/10/2014	8.58	0.09	0.00	0.05	
2/11/2014	2/11/2014	9.35	0.09	0.00	0.05	
2/12/2014	2/12/2014	9.31	0.15	0.00	0.15	
2/13/2014	2/13/2014	9.51	0.12	0.00	0.10	
2/14/2014	2/14/2014	9.28	0.25	0.00	0.05	
2/15/2014	2/15/2014					
2/16/2014	2/16/2014					
2/17/2014	2/17/2014					
2/18/2014	2/18/2014	8.64	0.22	0.00	0.10	
2/19/2014	2/19/2014	9.35	0.22	0.20	0.40	
2/20/2014	2/20/2014	9.26	0.09	0.15	0.30	
2/21/2014	2/21/2014	9.30	0.12	0.15	0.35	
2/22/2014	2/22/2014					
2/23/2014	2/23/2014					
2/24/2014	2/24/2014	8.63	0.11	0.05	0.20	
2/25/2014	2/25/2014	9.21	0.08	0.00	0.05	
2/26/2014	2/26/2014	9.21	0.09	0.00	0.05	
2/27/2014	2/27/2014	9.23	0.11	0.00	0.05	
2/28/2014	2/28/2014	9.24	0.08	0.00	0.05	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Canton

4101 Shuffel Street NW

North Canton, OH 44720

Tel: (330)497-9396

TestAmerica Job ID: 240-29609-1

Client Project/Site: 12607-T01-012, RACER Eckles Rd

For:

Conestoga-Rovers & Associates, Inc.

14496 Sheldon Road, Suite 200

Plymouth, Michigan 48170

Attn: Mr. Paul Wiseman



Authorized for release by:

10/11/2013 5:45:07 AM

Denise Heckler, Project Manager II

(330)966-9477

denise.heckler@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-29609-1

Job ID: 240-29609-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Conestoga-Rovers & Associates, Inc.

Project: 12607-T01-012, RACER Eckles Rd

Report Number: 240-29609-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 09/28/2013; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.4 C.

POLYCHLORINATED BIPHENYLS (PCBS)

Sample WT-12607-092713-EE-001 (240-29609-1) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA Method 608. The samples were prepared on 10/02/2013 and analyzed on 10/03/2013.

No difficulties were encountered during the PCBs analysis.

All quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICP)

Sample WT-12607-092713-EE-001 (240-29609-1) was analyzed for total recoverable metals (ICP) in accordance with EPA Method 200.7. The samples were prepared on 10/01/2013 and analyzed on 10/04/2013.

Zinc was detected in method blank MB 240-103650/1-A at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

No other difficulties were encountered during the metals analysis.

Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-29609-1

Job ID: 240-29609-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

All other quality control parameters were within the acceptance limits.

MERCURY

Sample WT-12607-092713-EE-001 (240-29609-1) was analyzed for mercury in accordance with EPA Method 245.1. The samples were prepared on 10/01/2013 and analyzed on 10/02/2013.

No difficulties were encountered during the mercury analysis.

All quality control parameters were within the acceptance limits.

N-HEXANE EXTRACTABLE MATERIAL

Sample WT-12607-092713-EE-001 (240-29609-1) was analyzed for n-hexane extractable material in accordance with EPA Method 1664A. The samples were prepared and analyzed on 10/09/2013.

No difficulties were encountered during the HEM analysis.

All quality control parameters were within the acceptance limits.

TOTAL SUSPENDED SOLIDS

Sample WT-12607-092713-EE-001 (240-29609-1) was analyzed for total suspended solids in accordance with SM 2540D. The samples were analyzed on 10/01/2013.

No difficulties were encountered during the TSS analysis.

All quality control parameters were within the acceptance limits.

HEXAVALENT CHROMIUM

Sample WT-12607-092713-EE-001 (240-29609-1) was analyzed for hexavalent chromium in accordance with SM 3500 CR D. The samples were analyzed on 09/28/2013.

No difficulties were encountered during the hexavalent chromium analysis.

All quality control parameters were within the acceptance limits.

Definitions/Glossary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-29609-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Sample Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-29609-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-29609-1	WT-12607-092713-EE-001	Water	09/27/13 15:00	09/28/13 09:40

Detection Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-29609-1

Client Sample ID: WT-12607-092713-EE-001

Lab Sample ID: 240-29609-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.092		0.050	mg/L	1		200.7 Rev 4.4	Total
Nickel	0.037		0.010	mg/L	1		200.7 Rev 4.4	Recoverable Total
Total Suspended Solids	4.0		4.0	mg/L	1		SM 2540D	Recoverable Total/NA
Cr (VI)	0.074		0.0050	mg/L	1		SM 3500 CR D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

Method Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-29609-1

Method	Method Description	Protocol	Laboratory
608	Polychlorinated Biphenyls (PCBs) (GC)	40CFR136A	TAL CAN
200.7 Rev 4.4	Metals (ICP)	EPA	TAL CAN
245.1	Mercury (CVAA)	EPA	TAL CAN
1664A	HEM and SGT-HEM	1664A	TAL CAN
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL CAN
SM 3500 CR D	Chromium, Hexavalent	SM	TAL CAN

Protocol References:

1664A = EPA-821-98-002

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

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-29609-1

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Client Sample ID: WT-12607-092713-EE-001

Date Collected: 09/27/13 15:00

Date Received: 09/28/13 09:40

Lab Sample ID: 240-29609-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	ug/L		10/02/13 09:56	10/03/13 17:00	1
Aroclor-1221	0.095	U	0.095	ug/L		10/02/13 09:56	10/03/13 17:00	1
Aroclor-1232	0.095	U	0.095	ug/L		10/02/13 09:56	10/03/13 17:00	1
Aroclor-1242	0.095	U	0.095	ug/L		10/02/13 09:56	10/03/13 17:00	1
Aroclor-1248	0.095	U	0.095	ug/L		10/02/13 09:56	10/03/13 17:00	1
Aroclor-1254	0.095	U	0.095	ug/L		10/02/13 09:56	10/03/13 17:00	1
Aroclor-1260	0.095	U	0.095	ug/L		10/02/13 09:56	10/03/13 17:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	62		10 - 114			10/02/13 09:56	10/03/13 17:00	1
Tetrachloro-m-xylene	63		15 - 131			10/02/13 09:56	10/03/13 17:00	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-29609-1

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Client Sample ID: WT-12607-092713-EE-001

Date Collected: 09/27/13 15:00

Date Received: 09/28/13 09:40

Lab Sample ID: 240-29609-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.092		0.050	mg/L		10/01/13 10:05	10/04/13 17:19	1
Nickel	0.037		0.010	mg/L		10/01/13 10:05	10/04/13 17:19	1
Lead	0.050	U	0.050	mg/L		10/01/13 10:05	10/04/13 17:19	1
Zinc	0.020	U	0.020	mg/L		10/01/13 10:05	10/04/13 17:19	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-29609-1

Method: 245.1 - Mercury (CVAA)

Client Sample ID: WT-12607-092713-EE-001

Date Collected: 09/27/13 15:00

Date Received: 09/28/13 09:40

Lab Sample ID: 240-29609-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		10/01/13 16:05	10/02/13 16:53	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-29609-1

General Chemistry

Client Sample ID: WT-12607-092713-EE-001

Date Collected: 09/27/13 15:00

Date Received: 09/28/13 09:40

Lab Sample ID: 240-29609-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	4.7	U	4.7	mg/L		10/09/13 09:09	10/09/13 09:09	1
Total Suspended Solids	4.0		4.0	mg/L			10/01/13 08:52	1
Cr (VI)	0.074		0.0050	mg/L			09/28/13 13:05	1

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-29609-1

GC Semi VOA

Prep Batch: 103818

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-29609-1	WT-12607-092713-EE-001	Total/NA	Water	3510C	
LCS 240-103818/17-A	Lab Control Sample	Total/NA	Water	3510C	
MB 240-103818/16-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 104042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-29609-1	WT-12607-092713-EE-001	Total/NA	Water	608	103818
LCS 240-103818/17-A	Lab Control Sample	Total/NA	Water	608	103818
MB 240-103818/16-A	Method Blank	Total/NA	Water	608	103818

Metals

Prep Batch: 103650

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-29609-1	WT-12607-092713-EE-001	Total Recoverable	Water	200.7	
LCS 240-103650/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
MB 240-103650/1-A	Method Blank	Total Recoverable	Water	200.7	

Prep Batch: 103653

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-29609-1	WT-12607-092713-EE-001	Total/NA	Water	245.1	
LCS 240-103653/2-A	Lab Control Sample	Total/NA	Water	245.1	
MB 240-103653/1-A	Method Blank	Total/NA	Water	245.1	

Analysis Batch: 103954

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-29609-1	WT-12607-092713-EE-001	Total/NA	Water	245.1	103653
LCS 240-103653/2-A	Lab Control Sample	Total/NA	Water	245.1	103653
MB 240-103653/1-A	Method Blank	Total/NA	Water	245.1	103653

Analysis Batch: 104388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-29609-1	WT-12607-092713-EE-001	Total Recoverable	Water	200.7 Rev 4.4	103650
LCS 240-103650/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	103650
MB 240-103650/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	103650

General Chemistry

Analysis Batch: 103373

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-29609-1	WT-12607-092713-EE-001	Total/NA	Water	SM 3500 CR D	
240-29609-1 MS	WT-12607-092713-EE-001	Total/NA	Water	SM 3500 CR D	
240-29609-1 MSD	WT-12607-092713-EE-001	Total/NA	Water	SM 3500 CR D	
LCS 240-103373/4	Lab Control Sample	Total/NA	Water	SM 3500 CR D	
MB 240-103373/3	Method Blank	Total/NA	Water	SM 3500 CR D	

Analysis Batch: 103616

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-29609-1	WT-12607-092713-EE-001	Total/NA	Water	SM 2540D	
LCS 240-103616/2	Lab Control Sample	Total/NA	Water	SM 2540D	

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QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-29609-1

General Chemistry (Continued)

Analysis Batch: 103616 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-103616/1	Method Blank	Total/NA	Water	SM 2540D	

Prep Batch: 104802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-29609-1	WT-12607-092713-EE-001	Total/NA	Water	1664A	
LCS 240-104802/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 240-104802/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 104817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-29609-1	WT-12607-092713-EE-001	Total/NA	Water	1664A	104802
LCS 240-104802/2-A	Lab Control Sample	Total/NA	Water	1664A	104802
MB 240-104802/1-A	Method Blank	Total/NA	Water	1664A	104802

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-29609-1

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 240-103818/16-A

Matrix: Water

Analysis Batch: 104042

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 103818

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	ug/L		10/02/13 09:56	10/03/13 16:18	1
Aroclor-1221	0.10	U	0.10	ug/L		10/02/13 09:56	10/03/13 16:18	1
Aroclor-1232	0.10	U	0.10	ug/L		10/02/13 09:56	10/03/13 16:18	1
Aroclor-1242	0.10	U	0.10	ug/L		10/02/13 09:56	10/03/13 16:18	1
Aroclor-1248	0.10	U	0.10	ug/L		10/02/13 09:56	10/03/13 16:18	1
Aroclor-1254	0.10	U	0.10	ug/L		10/02/13 09:56	10/03/13 16:18	1
Aroclor-1260	0.10	U	0.10	ug/L		10/02/13 09:56	10/03/13 16:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	53		10 - 114	10/02/13 09:56	10/03/13 16:18	1
Tetrachloro-m-xylene	80		15 - 131	10/02/13 09:56	10/03/13 16:18	1

Lab Sample ID: LCS 240-103818/17-A

Matrix: Water

Analysis Batch: 104042

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 103818

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	2.50	2.65		ug/L		106	50 - 114
Aroclor-1260	2.50	2.70		ug/L		108	8 - 127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	61		10 - 114
Tetrachloro-m-xylene	74		15 - 131

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 240-103650/1-A

Matrix: Water

Analysis Batch: 104388

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 103650

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.050	U	0.050	mg/L		10/01/13 10:05	10/04/13 10:54	1
Nickel	0.010	U	0.010	mg/L		10/01/13 10:05	10/04/13 10:54	1
Lead	0.050	U	0.050	mg/L		10/01/13 10:05	10/04/13 10:54	1
Zinc	0.0203		0.020	mg/L		10/01/13 10:05	10/04/13 10:54	1

Lab Sample ID: LCS 240-103650/2-A

Matrix: Water

Analysis Batch: 104388

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 103650

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	0.200	0.188		mg/L		94	85 - 115
Nickel	0.500	0.462		mg/L		92	85 - 115
Lead	0.500	0.451		mg/L		90	85 - 115
Zinc	0.500	0.476		mg/L		95	85 - 115

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QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-29609-1

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 240-103653/1-A

Matrix: Water

Analysis Batch: 103954

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 103653

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		10/01/13 16:05	10/02/13 16:14	1

Lab Sample ID: LCS 240-103653/2-A

Matrix: Water

Analysis Batch: 103954

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 103653

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00500	0.00476		mg/L		95	85 - 115

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 240-104802/1-A

Matrix: Water

Analysis Batch: 104817

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 104802

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	5.0	U	5.0	mg/L		10/09/13 09:09	10/09/13 09:09	1

Lab Sample ID: LCS 240-104802/2-A

Matrix: Water

Analysis Batch: 104817

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 104802

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM	40.0	36.7		mg/L		92	78 - 114

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

Lab Sample ID: MB 240-103616/1

Matrix: Water

Analysis Batch: 103616

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	4.0	U	4.0	mg/L			10/01/13 08:52	1

Lab Sample ID: LCS 240-103616/2

Matrix: Water

Analysis Batch: 103616

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	29.0	29.0		mg/L		100	73 - 113

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-29609-1

Method: SM 3500 CR D - Chromium, Hexavalent

Lab Sample ID: MB 240-103373/3

Matrix: Water

Analysis Batch: 103373

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0050	U	0.0050	mg/L			09/28/13 13:04	1

Lab Sample ID: LCS 240-103373/4

Matrix: Water

Analysis Batch: 103373

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.250	0.252		mg/L		101	80 - 118

Lab Sample ID: 240-29609-1 MS

Matrix: Water

Analysis Batch: 103373

Client Sample ID: WT-12607-092713-EE-001

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.074		0.250	0.308		mg/L		94	41 - 136

Lab Sample ID: 240-29609-1 MSD

Matrix: Water

Analysis Batch: 103373

Client Sample ID: WT-12607-092713-EE-001

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cr (VI)	0.074		0.250	0.256		mg/L		73	41 - 136	18	20

TestAmerica Canton

Surrogate Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-29609-1

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB2 (10-114)	TCX2 (15-131)
240-29609-1	WT-12607-092713-EE-001	62	63
LCS 240-103818/17-A	Lab Control Sample	61	74
MB 240-103818/16-A	Method Blank	53	80

Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-29609-1

Client Sample ID: WT-12607-092713-EE-001

Lab Sample ID: 240-29609-1

Date Collected: 09/27/13 15:00

Matrix: Water

Date Received: 09/28/13 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			103818	10/02/13 09:56	BPM	TAL CAN
Total/NA	Analysis	608		1	104042	10/03/13 17:00	HMB	TAL CAN
Total/NA	Prep	245.1			103653	10/01/13 16:05	LPM	TAL CAN
Total/NA	Analysis	245.1		1	103954	10/02/13 16:53	AMM2	TAL CAN
Total Recoverable	Prep	200.7			103650	10/01/13 10:05	LPM	TAL CAN
Total Recoverable	Analysis	200.7 Rev 4.4		1	104388	10/04/13 17:19	ADS	TAL CAN
Total/NA	Analysis	SM 3500 CR D		1	103373	09/28/13 13:05	KMG	TAL CAN
Total/NA	Analysis	SM 2540D		1	103616	10/01/13 08:52	KMG	TAL CAN
Total/NA	Prep	1664A			104802	10/09/13 09:09	WAL	TAL CAN
Total/NA	Analysis	1664A		1	104817	10/09/13 09:09	WAL	TAL CAN

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Certification Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-29609-1

Laboratory: TestAmerica Canton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAP	9	01144CA	06-30-14
Connecticut	State Program	1	PH-0590	12-31-13
Florida	NELAP	4	E87225	06-30-14
Georgia	State Program	4	N/A	06-30-14
Illinois	NELAP	5	200004	07-31-14 *
Kansas	NELAP	7	E-10336	01-31-14
Kentucky	State Program	4	58	06-30-14
L-A-B	DoD ELAP		L2315	07-18-16
Nevada	State Program	9	OH-000482008A	07-31-14
New Jersey	NELAP	2	OH001	06-30-14
New York	NELAP	2	10975	04-01-14
Ohio VAP	State Program	5	CL0024	01-19-14
Pennsylvania	NELAP	3	68-00340	08-31-14 *
Texas	NELAP	6		08-31-14 *
USDA	Federal		P330-11-00328	08-26-14
Virginia	NELAP	3	460175	09-14-14
Washington	State Program	10	C971	01-12-14
Wisconsin	State Program	5	999518190	08-31-14

* Expired certification is currently pending renewal and is considered valid.

TestAmerica Canton



CONESTOGA-ROVERS
& ASSOCIATES

CHAIN OF CUSTODY RECORD

14496 Sheldon Road, Suite #200, Plymouth, Michigan 48170

Phone: (734) 453-5123

Fax: (734) 453-5201

COC NO. PL-1131C

PAGE 1 OF 1

(See Reverse Side for Instructions)

3, 4

Project No/ Phase/Task Code: 12607-T01Y13-003		Laboratory Name: Test America		Lab Location: N. Canton, OH		SSOW ID: 12607-T01Y13-012	
Project Name: RACER Livonia GWTP		Lab Contact: Denise Heckler		Lab Quote No:		Cooler No:	
Project Location: Livonia, MI		CONTAINER QUANTITY & PRESERVATION		ANALYSIS REQUESTED (See Back of COC for Definitions)		Carrier:	
Chemistry Contact: Paul Wiseman, CRA		SAMPLE TYPE		Total Containers/Sample		Airbill No:	
Sampler(s): Erik Engnell, CRA		(see back of COC)		6		Date Shipped:	
SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)		DATE TIME (mm/dd/yyyy)		EnCores 3x5-g, 1x25-g		COMMENTS/SPECIAL INSTRUCTIONS:	
1 WT-12607-092713-EE-001		9/27/13 1500 WT		Unpreserved		MS/MSD Request	
2				Hydrochloric Acid (HCl)			
3				Nitric Acid (HNO ₃)			
4				Sulfuric Acid (H ₂ SO ₄)			
5				Sodium Hydroxide (NaOH)			
6				Methanol/Water (Soil VOC)			
7				Other:			
8				Total Containers/Sample			
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TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 29609

Client CRA

Site Name Racer Livonia

Cooler unpacked by:

Derry Burns

Cooler Received on 9/28/13

Opened on 9/28/13

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

TestAmerica Cooler # NI SVC Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A (CF +2 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

IR GUN# 4 (CF +1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

IR GUN# 5 (CF +2 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

IR GUN# 8 (CF -0 °C) Observed Cooler Temp. 3.4 °C Corrected Cooler Temp. 3.4 °C

☐ See Multiple Cooler Form

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity _____ Yes No

-Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA

-Were custody seals on the bottle(s)? Yes No

3. Shippers' packing slip attached to the cooler(s)? Yes No

4. Did custody papers accompany the sample(s)? Yes No

5. Were the custody papers relinquished & signed in the appropriate place? Yes No

6. Did all bottles arrive in good condition (Unbroken)? Yes No

7. Could all bottle labels be reconciled with the COC? Yes No

8. Were correct bottle(s) used for the test(s) indicated? Yes No

9. Sufficient quantity received to perform indicated analyses? Yes No

10. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC376062

11. Were VOAs on the COC? Yes No

12. Were air bubbles >6 mm in any VOA vials? Yes No NA

13. Was a trip blank present in the cooler(s)? Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

David W. Green

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u> <u>pH</u>	<u>Preservative</u> <u>Added (mls)</u>	<u>Lot #</u>
WT-12607-092713-EE-001	240-29609-B-1	Plastic 1 liter - Nitric Acid	<2	_____	_____
WT-12607-092713-EE-001	240-29609-C-1	Amber Glass 1 liter - Sulfuric Acid	<2	_____	_____
WT-12607-092713-EE-001	240-29609-D-1	Amber Glass 1 liter - Sulfuric Acid	<2	_____	_____

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Canton

4101 Shuffel Street NW

North Canton, OH 44720

Tel: (330)497-9396

TestAmerica Job ID: 240-30337-1

Client Project/Site: 12607-T01-012, RACER Eckles Rd

For:

Conestoga-Rovers & Associates, Inc.

14496 Sheldon Road, Suite 200

Plymouth, Michigan 48170

Attn: Mr. Paul Wiseman



Authorized for release by:

10/31/2013 5:24:13 PM

Nathan Pietras, Project Manager II

(330)966-8296

nathan.pietras@testamericainc.com

Designee for

Denise Heckler, Project Manager II

(330)966-9477

denise.heckler@testamericainc.com

LINKS

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results through

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Have a Question?



Visit us at:

www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-30337-1

Job ID: 240-30337-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Conestoga-Rovers & Associates, Inc.

Project: 12607-T01-012, RACER Eckles Rd

Report Number: 240-30337-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 10/17/2013; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 5.4 C.

POLYCHLORINATED BIPHENYLS (PCBS)

Sample WT-12607-101613-EE-001 (240-30337-1) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA Method 608. The samples were prepared on 10/18/2013 and analyzed on 10/21/2013.

No difficulties were encountered during the PCBs analysis.

All quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICP)

Sample WT-12607-101613-EE-001 (240-30337-1) was analyzed for total recoverable metals (ICP) in accordance with EPA Method 200.7. The samples were prepared on 10/21/2013 and analyzed on 10/24/2013.

No difficulties were encountered during the metals analysis.

Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-30337-1

Job ID: 240-30337-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

All quality control parameters were within the acceptance limits.

MERCURY

Sample WT-12607-101613-EE-001 (240-30337-1) was analyzed for mercury in accordance with EPA Method 245.1. The samples were prepared on 10/21/2013 and analyzed on 10/23/2013.

No difficulties were encountered during the mercury analysis.

All quality control parameters were within the acceptance limits.

N-HEXANE EXTRACTABLE MATERIAL

Sample WT-12607-101613-EE-001 (240-30337-1) was analyzed for n-hexane extractable material in accordance with EPA Method 1664A. The samples were prepared and analyzed on 10/23/2013.

No other difficulties were encountered during the HEM analysis.

All other quality control parameters were within the acceptance limits.

TOTAL SUSPENDED SOLIDS

Sample WT-12607-101613-EE-001 (240-30337-1) was analyzed for total suspended solids in accordance with SM 2540D. The samples were analyzed on 10/22/2013.

No difficulties were encountered during the TSS analysis.

All quality control parameters were within the acceptance limits.

HEXAVALENT CHROMIUM

Sample WT-12607-101613-EE-001 (240-30337-1) was analyzed for hexavalent chromium in accordance with SM 3500 CR D. The samples were analyzed on 10/17/2013.

No difficulties were encountered during the hexavalent chromium analysis.

All quality control parameters were within the acceptance limits.

Definitions/Glossary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-30337-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Sample Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-30337-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-30337-1	WT-12607-101613-EE-001	Water	10/16/13 16:00	10/17/13 09:30

Detection Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-30337-1

Client Sample ID: WT-12607-101613-EE-001

Lab Sample ID: 240-30337-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.090		0.050	mg/L	1		200.7 Rev 4.4	Total
Nickel	0.10		0.010	mg/L	1		200.7 Rev 4.4	Recoverable
								Total
								Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

Method Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-30337-1

Method	Method Description	Protocol	Laboratory
608	Polychlorinated Biphenyls (PCBs) (GC)	40CFR136A	TAL CAN
200.7 Rev 4.4	Metals (ICP)	EPA	TAL CAN
245.1	Mercury (CVAA)	EPA	TAL CAN
1664A	HEM and SGT-HEM	1664A	TAL CAN
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL CAN
SM 3500 CR D	Chromium, Hexavalent	SM	TAL CAN

Protocol References:

1664A = EPA-821-98-002

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

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-30337-1

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Client Sample ID: WT-12607-101613-EE-001

Date Collected: 10/16/13 16:00

Date Received: 10/17/13 09:30

Lab Sample ID: 240-30337-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	ug/L		10/18/13 09:11	10/21/13 11:33	1
Aroclor-1221	0.095	U	0.095	ug/L		10/18/13 09:11	10/21/13 11:33	1
Aroclor-1232	0.095	U	0.095	ug/L		10/18/13 09:11	10/21/13 11:33	1
Aroclor-1242	0.095	U	0.095	ug/L		10/18/13 09:11	10/21/13 11:33	1
Aroclor-1248	0.095	U	0.095	ug/L		10/18/13 09:11	10/21/13 11:33	1
Aroclor-1254	0.095	U	0.095	ug/L		10/18/13 09:11	10/21/13 11:33	1
Aroclor-1260	0.095	U	0.095	ug/L		10/18/13 09:11	10/21/13 11:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	66		10 - 114	10/18/13 09:11	10/21/13 11:33	1
Tetrachloro-m-xylene	82		15 - 131	10/18/13 09:11	10/21/13 11:33	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-30337-1

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Client Sample ID: WT-12607-101613-EE-001

Date Collected: 10/16/13 16:00

Date Received: 10/17/13 09:30

Lab Sample ID: 240-30337-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.090		0.050	mg/L		10/21/13 10:13	10/24/13 02:17	1
Nickel	0.10		0.010	mg/L		10/21/13 10:13	10/24/13 02:17	1
Lead	0.050	U	0.050	mg/L		10/21/13 10:13	10/24/13 02:17	1
Zinc	0.020	U	0.020	mg/L		10/21/13 10:13	10/24/13 02:17	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-30337-1

Method: 245.1 - Mercury (CVAA)

Client Sample ID: WT-12607-101613-EE-001

Date Collected: 10/16/13 16:00

Date Received: 10/17/13 09:30

Lab Sample ID: 240-30337-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		10/21/13 15:50	10/23/13 15:44	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-30337-1

General Chemistry

Client Sample ID: WT-12607-101613-EE-001

Date Collected: 10/16/13 16:00

Date Received: 10/17/13 09:30

Lab Sample ID: 240-30337-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	4.8	U	4.8	mg/L		10/23/13 08:22	10/23/13 08:22	1
Total Suspended Solids	4.0	U	4.0	mg/L			10/22/13 09:23	1
Cr (VI)	0.0050	U	0.0050	mg/L			10/17/13 11:38	1

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-30337-1

GC Semi VOA

Prep Batch: 106139

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-30337-1	WT-12607-101613-EE-001	Total/NA	Water	3510C	
LCS 240-106139/6-A	Lab Control Sample	Total/NA	Water	3510C	
MB 240-106139/5-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 106376

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-30337-1	WT-12607-101613-EE-001	Total/NA	Water	608	106139
LCS 240-106139/6-A	Lab Control Sample	Total/NA	Water	608	106139
MB 240-106139/5-A	Method Blank	Total/NA	Water	608	106139

Metals

Prep Batch: 106364

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-30337-1	WT-12607-101613-EE-001	Total Recoverable	Water	200.7	
LCS 240-106364/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
MB 240-106364/1-A	Method Blank	Total Recoverable	Water	200.7	

Prep Batch: 106366

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-30337-1	WT-12607-101613-EE-001	Total/NA	Water	245.1	
LCS 240-106366/2-A	Lab Control Sample	Total/NA	Water	245.1	
MB 240-106366/1-A	Method Blank	Total/NA	Water	245.1	

Analysis Batch: 106847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-30337-1	WT-12607-101613-EE-001	Total Recoverable	Water	200.7 Rev 4.4	106364

Analysis Batch: 106978

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-30337-1	WT-12607-101613-EE-001	Total/NA	Water	245.1	106366
LCS 240-106366/2-A	Lab Control Sample	Total/NA	Water	245.1	106366
MB 240-106366/1-A	Method Blank	Total/NA	Water	245.1	106366

Analysis Batch: 107016

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-106364/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	106364

Analysis Batch: 107242

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-106364/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	106364

General Chemistry

Analysis Batch: 106004

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-30337-1	WT-12607-101613-EE-001	Total/NA	Water	SM 3500 CR D	
LCS 240-106004/4	Lab Control Sample	Total/NA	Water	SM 3500 CR D	
MB 240-106004/3	Method Blank	Total/NA	Water	SM 3500 CR D	

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QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-30337-1

General Chemistry (Continued)

Analysis Batch: 106535

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-30337-1	WT-12607-101613-EE-001	Total/NA	Water	SM 2540D	
LCS 240-106535/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 240-106535/1	Method Blank	Total/NA	Water	SM 2540D	

Prep Batch: 106705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-30337-1	WT-12607-101613-EE-001	Total/NA	Water	1664A	
LCS 240-106705/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 240-106705/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 106738

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-30337-1	WT-12607-101613-EE-001	Total/NA	Water	1664A	106705
LCS 240-106705/2-A	Lab Control Sample	Total/NA	Water	1664A	106705
MB 240-106705/1-A	Method Blank	Total/NA	Water	1664A	106705

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-30337-1

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 240-106139/5-A

Matrix: Water

Analysis Batch: 106376

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 106139

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	ug/L		10/18/13 09:11	10/21/13 12:33	1
Aroclor-1221	0.10	U	0.10	ug/L		10/18/13 09:11	10/21/13 12:33	1
Aroclor-1232	0.10	U	0.10	ug/L		10/18/13 09:11	10/21/13 12:33	1
Aroclor-1242	0.10	U	0.10	ug/L		10/18/13 09:11	10/21/13 12:33	1
Aroclor-1248	0.10	U	0.10	ug/L		10/18/13 09:11	10/21/13 12:33	1
Aroclor-1254	0.10	U	0.10	ug/L		10/18/13 09:11	10/21/13 12:33	1
Aroclor-1260	0.10	U	0.10	ug/L		10/18/13 09:11	10/21/13 12:33	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	46		10 - 114	10/18/13 09:11	10/21/13 12:33	1
Tetrachloro-m-xylene	86		15 - 131	10/18/13 09:11	10/21/13 12:33	1

Lab Sample ID: LCS 240-106139/6-A

Matrix: Water

Analysis Batch: 106376

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 106139

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	2.50	2.57		ug/L		103	50 - 114
Aroclor-1260	2.50	2.73		ug/L		109	8 - 127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	53		10 - 114
Tetrachloro-m-xylene	91		15 - 131

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 240-106364/1-A

Matrix: Water

Analysis Batch: 107016

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 106364

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.050	U	0.050	mg/L		10/21/13 10:13	10/24/13 18:36	1
Nickel	0.010	U	0.010	mg/L		10/21/13 10:13	10/24/13 18:36	1
Lead	0.050	U	0.050	mg/L		10/21/13 10:13	10/24/13 18:36	1
Zinc	0.020	U	0.020	mg/L		10/21/13 10:13	10/24/13 18:36	1

Lab Sample ID: LCS 240-106364/2-A

Matrix: Water

Analysis Batch: 107242

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 106364

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	0.200	0.200		mg/L		100	85 - 115
Nickel	0.500	0.494		mg/L		99	85 - 115
Lead	0.500	0.489		mg/L		98	85 - 115
Zinc	0.500	0.504		mg/L		101	85 - 115

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-30337-1

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 240-106366/1-A
Matrix: Water
Analysis Batch: 106978

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 106366

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		10/21/13 15:50	10/23/13 15:08	1

Lab Sample ID: LCS 240-106366/2-A
Matrix: Water
Analysis Batch: 106978

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 106366

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00500	0.00479		mg/L		96	85 - 115

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 240-106705/1-A
Matrix: Water
Analysis Batch: 106738

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 106705

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	5.0	U	5.0	mg/L		10/23/13 08:22	10/23/13 08:22	1

Lab Sample ID: LCS 240-106705/2-A
Matrix: Water
Analysis Batch: 106738

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 106705

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM	40.0	38.8		mg/L		97	78 - 114

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

Lab Sample ID: MB 240-106535/1
Matrix: Water
Analysis Batch: 106535

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	4.0	U	4.0	mg/L			10/22/13 09:23	1

Lab Sample ID: LCS 240-106535/2
Matrix: Water
Analysis Batch: 106535

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	37.7	33.0		mg/L		88	73 - 113

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QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-30337-1

Method: SM 3500 CR D - Chromium, Hexavalent

Lab Sample ID: MB 240-106004/3

Matrix: Water

Analysis Batch: 106004

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0050	U	0.0050	mg/L			10/17/13 10:55	1

Lab Sample ID: LCS 240-106004/4

Matrix: Water

Analysis Batch: 106004

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.250	0.267		mg/L		107	80 - 118

Surrogate Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-30337-1

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB2 (10-114)	TCX2 (15-131)
240-30337-1	WT-12607-101613-EE-001	66	82
LCS 240-106139/6-A	Lab Control Sample	53	91
MB 240-106139/5-A	Method Blank	46	86

Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-30337-1

Client Sample ID: WT-12607-101613-EE-001

Lab Sample ID: 240-30337-1

Date Collected: 10/16/13 16:00

Matrix: Water

Date Received: 10/17/13 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			106139	10/18/13 09:11	MPM	TAL CAN
Total/NA	Analysis	608		1	106376	10/21/13 11:33	LSH	TAL CAN
Total Recoverable	Prep	200.7			106364	10/21/13 10:13	ADS	TAL CAN
Total Recoverable	Analysis	200.7 Rev 4.4		1	106847	10/24/13 02:17	NJT	TAL CAN
Total/NA	Prep	245.1			106366	10/21/13 15:50	ADS	TAL CAN
Total/NA	Analysis	245.1		1	106978	10/23/13 15:44	AMM2	TAL CAN
Total/NA	Analysis	SM 3500 CR D		1	106004	10/17/13 11:38	LKG	TAL CAN
Total/NA	Analysis	SM 2540D		1	106535	10/22/13 09:23	LCN	TAL CAN
Total/NA	Prep	1664A			106705	10/23/13 08:22	WAL	TAL CAN
Total/NA	Analysis	1664A		1	106738	10/23/13 08:22	WAL	TAL CAN

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Certification Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-30337-1

Laboratory: TestAmerica Canton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAP	9	01144CA	06-30-14
Connecticut	State Program	1	PH-0590	12-31-13
Florida	NELAP	4	E87225	06-30-14
Georgia	State Program	4	N/A	06-30-14
Illinois	NELAP	5	200004	07-31-14 *
Kansas	NELAP	7	E-10336	01-31-14
Kentucky	State Program	4	58	06-30-14
L-A-B	DoD ELAP		L2315	07-18-16
Nevada	State Program	9	OH-000482008A	07-31-14
New Jersey	NELAP	2	OH001	06-30-14
New York	NELAP	2	10975	04-01-14
Ohio VAP	State Program	5	CL0024	01-19-14
Pennsylvania	NELAP	3	68-00340	08-31-14 *
Texas	NELAP	6		08-31-14 *
USDA	Federal		P330-11-00328	08-26-14
Virginia	NELAP	3	460175	09-14-14
Washington	State Program	10	C971	01-12-14
Wisconsin	State Program	5	999518190	08-31-14

* Expired certification is currently pending renewal and is considered valid.

TestAmerica Canton

CHAIN OF CUSTODY AND RECEIVING DOCUMENTS



240-30337 Chain of Custody



CHAIN OF CUSTODY RECORD

14496 Sheldon Road, Suite #200, Plymouth, Michigan 48170

Phone: (734) 453-5123

Fax: (734) 453-5201

COC NO: PL-12295

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PAGE 1 OF 1

(See Reverse Side for Instructions)

Project No/Phase/Task Code: 12607-T01Y13-003		Laboratory Name: Test America		Lab Location: NCanton OH		SSOW ID: 12607-T01Y13-003	
Project Name: RACERlivonia GWTP		Lab Contact: Denise Haeckler		Lab Quote No:		Cooler No:	
Project Location: Livonia, MI		CONTAINER QUANTITY & PRESERVATION		ANALYSIS REQUESTED (See Back of COC for Definitions)		Carrier:	
Chemistry Contact: Paul Wiseman, CRA		SAMPLE TYPE		Total Containers/Sample		Airbill No:	
Sampler(s): Erik Engnell, CRA		Matrix Code		Other:		Date Shipped:	
SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)		DATE (mm/dd/yyyy)		TIME (hh:mm)		COMMENTS/ SPECIAL INSTRUCTIONS:	
1 WT-12607-101613-EE-001		10/16/13		1600			
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
TAT Required in business days (use separate COCs for different TATs):		Total Number of Containers: 6		Notes/ Special Requirements:			
☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☒ 2 Week ☐ Other: STD		All Samples in Cooler must be on COC					
RELINQUISHED BY: Erik Engnell		DATE: 10/16/13		TIME: 1700		RECEIVED BY: Paul Wiseman	
COMPANY: CRA		DATE: 10/17/13		TIME: 930		COMPANY: THC	
1. Erik Engnell							
2. Erik Engnell							
3. Erik Engnell							

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT - ALL FIELDS MUST BE COMPLETED ACCURATELY

Distribution:

WHITE -- Fully Executed Copy (CRA)

YELLOW – Receiving Laboratory Copy

PINK – Shipper

GOLDENROD – Sampling Crew

CRA Form: COC-10A (20110804)

TestAmerica Canton Sample Receipt Form/Narrative

Login # : 30337

Canton Facility

Client <u>CDA</u>	Site Name	Cooler unpacked by: <u>[Signature]</u>
Cooler Received on <u>10-17-13</u>	Opened on <u>10-17-13</u>	
FedEx: 1 st Grd <u>Exp</u> UPS FAS Stetson Client Drop Off TestAmerica Courier Other		
TestAmerica Cooler #	Foam Box <u>Client Cooler</u>	Box Other
Packing material used: <u>Bubble Wrap</u>	Foam Plastic Bag	None Other
COOLANT: <u>Wet Ice</u>	Blue Ice Dry Ice Water	None
1. Cooler temperature upon receipt		
IR GUN# A (CF +2 °C) Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	
IR GUN# 4 (CF +1 °C) Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	☐ See Multiple Cooler Form
IR GUN# 5 (CF +2 °C) Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	
IR GUN# 8 (CF -0 °C) Observed Cooler Temp. <u>5.4</u> °C	Corrected Cooler Temp. <u>5.4</u> °C	
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity _____ Yes <u>No</u>		
-Were custody seals on the outside of the cooler(s) signed & dated? Yes <u>No</u> NA		
-Were custody seals on the bottle(s)? Yes <u>No</u>		
3. Shippers' packing slip attached to the cooler(s)? Yes <u>No</u>		
4. Did custody papers accompany the sample(s)? Yes <u>No</u>		
5. Were the custody papers relinquished & signed in the appropriate place? Yes <u>No</u>		
6. Did all bottles arrive in good condition (Unbroken)? Yes <u>No</u>		
7. Could all bottle labels be reconciled with the COC? Yes <u>No</u>		
8. Were correct bottle(s) used for the test(s) indicated? Yes <u>No</u>		
9. Sufficient quantity received to perform indicated analyses? Yes <u>No</u>		
10. Were sample(s) at the correct pH upon receipt? Yes <u>No</u> NA pH Strip Lot# <u>HC376062</u>		
11. Were VOAs on the COC? Yes <u>No</u>		
12. Were air bubbles >6 mm in any VOA vials? Yes <u>No</u> NA		
13. Was a trip blank present in the cooler(s)? Yes <u>No</u>		
Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other		
Concerning _____		

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by: [Signature]

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u> pH	<u>Preservative</u> Added (mls)	<u>Lot #</u>
WT-12607-101613-EE-001	240-30337-B-1	Plastic 500ml - with Nitric Acid	<2	_____	_____
WT-12607-101613-EE-001	240-30337-C-1	Amber Glass 1 liter - Sulfuric Acid	<2	_____	_____
WT-12607-101613-EE-001	240-30337-D-1	Amber Glass 1 liter - Sulfuric Acid	<2	_____	_____

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Canton

4101 Shuffel Street NW

North Canton, OH 44720

Tel: (330)497-9396

TestAmerica Job ID: 240-31728-1

Client Project/Site: 12607-T012, RACER Eckles Rd

For:

Conestoga-Rovers & Associates, Inc.

14496 Sheldon Road, Suite 200

Plymouth, Michigan 48170

Attn: Rawa Fleisher



Authorized for release by:

12/10/2013 10:46:50 AM

Denise Heckler, Project Manager II

(330)966-9477

denise.heckler@testamericainc.com

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Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T012, RACER Eckles Rd

TestAmerica Job ID: 240-31728-1

Job ID: 240-31728-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Conestoga-Rovers & Associates, Inc.

Project: 12607-T012, RACER Eckles Rd

Report Number: 240-31728-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 11/21/2013; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.6 C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Sample WT-12607-112013-EE-001 (240-31728-1) was analyzed for volatile organic compounds (GCMS) in accordance with EPA Method 624. The samples were analyzed on 11/22/2013.

No difficulties were encountered during the VOCs analysis.

All quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Sample WT-12607-112013-EE-001 (240-31728-1) was analyzed for semivolatile organic compounds (GCMS) in accordance with EPA Method 625. The samples were prepared on 11/25/2013 and analyzed on 11/26/2013.

No difficulties were encountered during the SVOC analysis.

All quality control parameters were within the acceptance limits.

Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T012, RACER Eckles Rd

TestAmerica Job ID: 240-31728-1

Job ID: 240-31728-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

DIOXIN SCREEN

Sample WT-12607-112013-EE-001 (240-31728-1) was analyzed for Dioxin Screen in accordance with EPA Method 625 Dioxin Screen. The samples were prepared on 11/25/2013 and analyzed on 11/27/2013.

No difficulties were encountered during the Dioxin Screen analysis.

All quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS (PCBS)

Sample WT-12607-112013-EE-001 (240-31728-1) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA Method 608. The samples were prepared on 11/23/2013 and analyzed on 11/26/2013.

Two surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: (LCS 240-111193/17-A). The results have been reported and qualified.

No other difficulties were encountered during the PCBs analysis.

All other quality control parameters were within the acceptance limits.

CHLORINATED PESTICIDES

Sample WT-12607-112013-EE-001 (240-31728-1) was analyzed for chlorinated pesticides in accordance with EPA Method 608. The samples were prepared on 11/25/2013 and analyzed on 12/05/2013.

beta-BHC was detected in method blank MB 240-111222/9-A at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

The capping continuing calibration verification (CCV) associated with batch 112455 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

The laboratory control sample (LCS) for batch 112455 recovered outside control limits for multiple analytes. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data has been reported.

The opening continuing calibration verification (CCV) for analytical batch 112455 recovered outside control limits for Toxaphene. The data has been qualified and reported.

No other difficulties were encountered during the pesticides analysis.

All other quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICP)

Sample WT-12607-112013-EE-001 (240-31728-1) was analyzed for total recoverable metals (ICP) in accordance with EPA Method 200.7. The samples were prepared on 11/22/2013 and analyzed on 11/26/2013.

Zinc was detected in method blank MB 240-111052/1-A at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

No other difficulties were encountered during the metals analysis.

All other quality control parameters were within the acceptance limits.

MERCURY

Sample WT-12607-112013-EE-001 (240-31728-1) was analyzed for mercury in accordance with EPA Method 245.1. The samples were prepared on 11/22/2013 and analyzed on 11/26/2013.

Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T012, RACER Eckles Rd

TestAmerica Job ID: 240-31728-1

Job ID: 240-31728-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

No difficulties were encountered during the mercury analysis.

All quality control parameters were within the acceptance limits.

N-HEXANE EXTRACTABLE MATERIAL

Sample WT-12607-112013-EE-001 (240-31728-1) was analyzed for n-hexane extractable material in accordance with EPA Method 1664A. The samples were prepared and analyzed on 11/26/2013.

No difficulties were encountered during the HEM analysis.

All other quality control parameters were within the acceptance limits.

TOTAL SUSPENDED SOLIDS

Sample WT-12607-112013-EE-001 (240-31728-1) was analyzed for total suspended solids in accordance with SM 2540D. The samples were analyzed on 11/26/2013.

No difficulties were encountered during the TSS analysis.

All quality control parameters were within the acceptance limits.

HEXAVALENT CHROMIUM

Sample WT-12607-112013-EE-001 (240-31728-1) was analyzed for hexavalent chromium in accordance with SM 3500 CR D. The samples were analyzed on 11/21/2013.

No difficulties were encountered during the hexavalent chromium analysis.

All other quality control parameters were within the acceptance limits.

Definitions/Glossary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T012, RACER Eckles Rd

TestAmerica Job ID: 240-31728-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
*	LCS or LCSD exceeds the control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
*	LCS or LCSD exceeds the control limits
X	Surrogate is outside control limits

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

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.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Sample Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T012, RACER Eckles Rd

TestAmerica Job ID: 240-31728-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-31728-1	WT-12607-112013-EE-001	Water	11/20/13 13:00	11/21/13 09:10

Detection Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T012, RACER Eckles Rd

TestAmerica Job ID: 240-31728-1

Client Sample ID: WT-12607-112013-EE-001

Lab Sample ID: 240-31728-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	1.6		1.0	ug/L	1		624	Total/NA
1,1-Dichloroethane	1.3		1.0	ug/L	1		624	Total/NA
2,3,7,8-TCDD	NEG			ng/uL	1		625	Total/NA
Nickel	0.25		0.010	mg/L	1		200.7 Rev 4.4	Total
Cr (VI)	0.0030	J	0.0050	0.0020 mg/L	1		SM 3500 CR D	Recoverable Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

Method Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T012, RACER Eckles Rd

TestAmerica Job ID: 240-31728-1

Method	Method Description	Protocol	Laboratory
624	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL CAN
625	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL CAN
625	Dioxin Screen (GC/MS SIM)	40CFR136A	TAL CAN
608	Polychlorinated Biphenyls (PCBs) (GC)	40CFR136A	TAL CAN
608	Organochlorine Pesticides in Water	40CFR136A	TAL CAN
200.7 Rev 4.4	Metals (ICP)	EPA	TAL CAN
245.1	Mercury (CVAA)	EPA	TAL CAN
1664A	HEM and SGT-HEM	1664A	TAL CAN
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL CAN
SM 3500 CR D	Chromium, Hexavalent	SM	TAL CAN

Protocol References:

1664A = EPA-821-98-002

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

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T012, RACER Eckles Rd

TestAmerica Job ID: 240-31728-1

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

Client Sample ID: WT-12607-112013-EE-001

Date Collected: 11/20/13 13:00

Date Received: 11/21/13 09:10

Lab Sample ID: 240-31728-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.6		1.0	ug/L			11/22/13 23:46	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	ug/L			11/22/13 23:46	1
1,1,2-Trichloroethane	1.0	U	1.0	ug/L			11/22/13 23:46	1
Xylenes, Total	1.0	U *	1.0	ug/L			11/22/13 23:46	1
1,1-Dichloroethane	1.3		1.0	ug/L			11/22/13 23:46	1
1,1-Dichloroethene	1.0	U	1.0	ug/L			11/22/13 23:46	1
1,2-Dichloroethane	1.0	U	1.0	ug/L			11/22/13 23:46	1
1,2-Dichloropropane	1.0	U	1.0	ug/L			11/22/13 23:46	1
Acrolein	10	U	10	ug/L			11/22/13 23:46	1
Acrylonitrile	10	U	10	ug/L			11/22/13 23:46	1
Benzene	1.0	U	1.0	ug/L			11/22/13 23:46	1
Bromoform	1.0	U	1.0	ug/L			11/22/13 23:46	1
Bromomethane	1.0	U	1.0	ug/L			11/22/13 23:46	1
Carbon tetrachloride	1.0	U	1.0	ug/L			11/22/13 23:46	1
Chlorobenzene	1.0	U	1.0	ug/L			11/22/13 23:46	1
Chlorodibromomethane	1.0	U	1.0	ug/L			11/22/13 23:46	1
Chloroethane	1.0	U	1.0	ug/L			11/22/13 23:46	1
Chloroform	1.0	U	1.0	ug/L			11/22/13 23:46	1
Chloromethane	1.0	U	1.0	ug/L			11/22/13 23:46	1
2-Chloroethyl vinyl ether	2.0	U	2.0	ug/L			11/22/13 23:46	1
cis-1,3-Dichloropropene	1.0	U	1.0	ug/L			11/22/13 23:46	1
Dichlorobromomethane	1.0	U	1.0	ug/L			11/22/13 23:46	1
Ethylbenzene	1.0	U	1.0	ug/L			11/22/13 23:46	1
1,2-Dichlorobenzene	1.0	U	1.0	ug/L			11/22/13 23:46	1
Tetrachloroethene	1.0	U	1.0	ug/L			11/22/13 23:46	1
1,3-Dichlorobenzene	1.0	U	1.0	ug/L			11/22/13 23:46	1
Toluene	1.0	U	1.0	ug/L			11/22/13 23:46	1
1,4-Dichlorobenzene	1.0	U	1.0	ug/L			11/22/13 23:46	1
trans-1,3-Dichloropropene	1.0	U	1.0	ug/L			11/22/13 23:46	1
Trichloroethene	1.0	U	1.0	ug/L			11/22/13 23:46	1
Vinyl chloride	1.0	U	1.0	ug/L			11/22/13 23:46	1
Methylene Chloride	1.0	U	1.0	ug/L			11/22/13 23:46	1
trans-1,2-Dichloroethene	1.0	U	1.0	ug/L			11/22/13 23:46	1
1,3-Dichloropropene, Total	1.0	U	1.0	ug/L			11/22/13 23:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		81 - 112		11/22/13 23:46	1
1,2-Dichloroethane-d4 (Surr)	85		80 - 125		11/22/13 23:46	1
Toluene-d8 (Surr)	92		84 - 110		11/22/13 23:46	1

TestAmerica Canton

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T012, RACER Eckles Rd

TestAmerica Job ID: 240-31728-1

Method: 625 - Dioxin Screen (GC/MS SIM)

Client Sample ID: WT-12607-112013-EE-001

Date Collected: 11/20/13 13:00

Date Received: 11/21/13 09:10

Lab Sample ID: 240-31728-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	NEG			ng/uL		11/25/13 11:47	11/27/13 15:14	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T012, RACER Eckles Rd

TestAmerica Job ID: 240-31728-1

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

Client Sample ID: WT-12607-112013-EE-001

Date Collected: 11/20/13 13:00

Date Received: 11/21/13 09:10

Lab Sample ID: 240-31728-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
2,4,6-Trichlorophenol	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
2,4-Dichlorophenol	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
2,4-Dimethylphenol	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
2,4-Dinitrophenol	48	U	48	ug/L		11/25/13 11:40	11/26/13 18:21	1
2,4-Dinitrotoluene	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
2,6-Dinitrotoluene	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
2-Chloronaphthalene	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
2-Chlorophenol	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
2-Nitrophenol	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
3,3'-Dichlorobenzidine	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
4,6-Dinitro-2-methylphenol	48	U	48	ug/L		11/25/13 11:40	11/26/13 18:21	1
4-Bromophenyl phenyl ether	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
4-Chlorophenyl phenyl ether	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
4-Nitrophenol	48	U	48	ug/L		11/25/13 11:40	11/26/13 18:21	1
Acenaphthene	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
Acenaphthylene	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
Anthracene	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
Benzidine	4.8	U	4.8	ug/L		11/25/13 11:40	11/26/13 18:21	1
Benzo[a]anthracene	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
Benzo[a]pyrene	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
Benzo[b]fluoranthene	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
Benzo[g,h,i]perylene	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
Benzo[k]fluoranthene	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
Bis(2-chloroethoxy)methane	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
Bis(2-chloroethyl)ether	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
Bis(2-ethylhexyl) phthalate	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
bis (2-chloroisopropyl) ether	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
Butyl benzyl phthalate	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
Chrysene	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
Dibenz(a,h)anthracene	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
Diethyl phthalate	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
Dimethyl phthalate	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
Di-n-butyl phthalate	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
Di-n-octyl phthalate	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
Fluoranthene	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
Fluorene	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
Hexachlorobenzene	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
Hexachlorobutadiene	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
Hexachlorocyclopentadiene	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
Hexachloroethane	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
Indeno[1,2,3-cd]pyrene	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
Isophorone	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
Naphthalene	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
Nitrobenzene	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
N-Nitrosodimethylamine	0.95	U	0.95	ug/L		11/25/13 11:40	11/26/13 18:21	1
N-Nitrosodi-n-propylamine	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
N-Nitrosodiphenylamine	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
4-Chloro-3-methylphenol	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1

TestAmerica Canton

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T012, RACER Eckles Rd

TestAmerica Job ID: 240-31728-1

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

Client Sample ID: WT-12607-112013-EE-001

Lab Sample ID: 240-31728-1

Date Collected: 11/20/13 13:00

Matrix: Water

Date Received: 11/21/13 09:10

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
Phenanthrene	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
Phenol	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
Pyrene	9.5	U	9.5	ug/L		11/25/13 11:40	11/26/13 18:21	1
1,2-Diphenylhydrazine	0.95	U	0.95	ug/L		11/25/13 11:40	11/26/13 18:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	43		10 - 135	11/25/13 11:40	11/26/13 18:21	1
2,4,6-Tribromophenol	77		10 - 142	11/25/13 11:40	11/26/13 18:21	1
Nitrobenzene-d5	55		44 - 110	11/25/13 11:40	11/26/13 18:21	1
Phenol-d5	26		10 - 132	11/25/13 11:40	11/26/13 18:21	1
Terphenyl-d14	35		24 - 135	11/25/13 11:40	11/26/13 18:21	1
2-Fluorobiphenyl (Surr)	49		38 - 110	11/25/13 11:40	11/26/13 18:21	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T012, RACER Eckles Rd

TestAmerica Job ID: 240-31728-1

Method: 608 - Organochlorine Pesticides in Water

Client Sample ID: WT-12607-112013-EE-001

Date Collected: 11/20/13 13:00

Date Received: 11/21/13 09:10

Lab Sample ID: 240-31728-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	0.048	U *	0.048	ug/L		11/25/13 06:50	12/05/13 23:17	1
alpha-BHC	0.048	U	0.048	ug/L		11/25/13 06:50	12/05/13 23:17	1
beta-BHC	0.048	U	0.048	ug/L		11/25/13 06:50	12/05/13 23:17	1
delta-BHC	0.048	U	0.048	ug/L		11/25/13 06:50	12/05/13 23:17	1
gamma-BHC (Lindane)	0.048	U *	0.048	ug/L		11/25/13 06:50	12/05/13 23:17	1
Chlordane (technical)	0.48	U	0.48	ug/L		11/25/13 06:50	12/05/13 23:17	1
Chlordane (technical) Peak 1	0.48	U	0.48	ug/L		11/25/13 06:50	12/05/13 23:17	1
Chlordane (technical) Peak 2	0.48	U	0.48	ug/L		11/25/13 06:50	12/05/13 23:17	1
Chlordane (technical) Peak 3	0.48	U	0.48	ug/L		11/25/13 06:50	12/05/13 23:17	1
Chlordane (technical) Peak 4	0.48	U	0.48	ug/L		11/25/13 06:50	12/05/13 23:17	1
4,4'-DDD	0.048	U *	0.048	ug/L		11/25/13 06:50	12/05/13 23:17	1
4,4'-DDE	0.048	U	0.048	ug/L		11/25/13 06:50	12/05/13 23:17	1
4,4'-DDT	0.048	U	0.048	ug/L		11/25/13 06:50	12/05/13 23:17	1
Dieldrin	0.048	U	0.048	ug/L		11/25/13 06:50	12/05/13 23:17	1
Endosulfan I	0.048	U	0.048	ug/L		11/25/13 06:50	12/05/13 23:17	1
Endosulfan II	0.048	U	0.048	ug/L		11/25/13 06:50	12/05/13 23:17	1
Endosulfan sulfate	0.048	U	0.048	ug/L		11/25/13 06:50	12/05/13 23:17	1
Endrin	0.048	U	0.048	ug/L		11/25/13 06:50	12/05/13 23:17	1
Endrin aldehyde	0.048	U	0.048	ug/L		11/25/13 06:50	12/05/13 23:17	1
Heptachlor	0.048	U *	0.048	ug/L		11/25/13 06:50	12/05/13 23:17	1
Heptachlor epoxide	0.048	U *	0.048	ug/L		11/25/13 06:50	12/05/13 23:17	1
Toxaphene	1.9	U	1.9	ug/L		11/25/13 06:50	12/05/13 23:17	1
Toxaphene Peak 1	1.9	U	1.9	ug/L		11/25/13 06:50	12/05/13 23:17	1
Toxaphene Peak 2	1.9	U	1.9	ug/L		11/25/13 06:50	12/05/13 23:17	1
Toxaphene Peak 3	1.9	U	1.9	ug/L		11/25/13 06:50	12/05/13 23:17	1
Toxaphene Peak 4	1.9	U	1.9	ug/L		11/25/13 06:50	12/05/13 23:17	1
Toxaphene Peak 5	1.9	U	1.9	ug/L		11/25/13 06:50	12/05/13 23:17	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	70		10 - 151			11/25/13 06:50	12/05/13 23:17	1
Tetrachloro-m-xylene	69		10 - 151			11/25/13 06:50	12/05/13 23:17	1

TestAmerica Canton

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T012, RACER Eckles Rd

TestAmerica Job ID: 240-31728-1

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Client Sample ID: WT-12607-112013-EE-001

Date Collected: 11/20/13 13:00

Date Received: 11/21/13 09:10

Lab Sample ID: 240-31728-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	ug/L		11/23/13 09:27	11/26/13 04:35	1
Aroclor-1221	0.095	U	0.095	ug/L		11/23/13 09:27	11/26/13 04:35	1
Aroclor-1232	0.095	U	0.095	ug/L		11/23/13 09:27	11/26/13 04:35	1
Aroclor-1242	0.095	U	0.095	ug/L		11/23/13 09:27	11/26/13 04:35	1
Aroclor-1248	0.095	U	0.095	ug/L		11/23/13 09:27	11/26/13 04:35	1
Aroclor-1254	0.095	U	0.095	ug/L		11/23/13 09:27	11/26/13 04:35	1
Aroclor-1260	0.095	U	0.095	ug/L		11/23/13 09:27	11/26/13 04:35	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	63		10 - 114			11/23/13 09:27	11/26/13 04:35	1
Tetrachloro-m-xylene	68		15 - 131			11/23/13 09:27	11/26/13 04:35	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T012, RACER Eckles Rd

TestAmerica Job ID: 240-31728-1

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Client Sample ID: WT-12607-112013-EE-001

Date Collected: 11/20/13 13:00

Date Received: 11/21/13 09:10

Lab Sample ID: 240-31728-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.050	U	0.050	mg/L		11/22/13 09:19	11/26/13 19:41	1
Nickel	0.25		0.010	mg/L		11/22/13 09:19	11/26/13 19:41	1
Lead	0.050	U	0.050	mg/L		11/22/13 09:19	11/26/13 19:41	1
Zinc	0.020	U	0.020	mg/L		11/22/13 09:19	11/26/13 19:41	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T012, RACER Eckles Rd

TestAmerica Job ID: 240-31728-1

Method: 245.1 - Mercury (CVAA)

Client Sample ID: WT-12607-112013-EE-001

Date Collected: 11/20/13 13:00

Date Received: 11/21/13 09:10

Lab Sample ID: 240-31728-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		11/22/13 12:45	11/26/13 15:04	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T012, RACER Eckles Rd

TestAmerica Job ID: 240-31728-1

General Chemistry

Client Sample ID: WT-12607-112013-EE-001

Date Collected: 11/20/13 13:00

Date Received: 11/21/13 09:10

Lab Sample ID: 240-31728-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	4.7	U	4.7	mg/L		11/26/13 09:47	11/26/13 09:47	1
Total Suspended Solids	4.0	U	4.0	mg/L			11/26/13 09:05	1
Cr (VI)	0.0030	J	0.0050	0.0020 mg/L			11/21/13 11:26	1

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T012, RACER Eckles Rd

TestAmerica Job ID: 240-31728-1

GC/MS VOA

Analysis Batch: 111155

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-31728-1	WT-12607-112013-EE-001	Total/NA	Water	624	
LCS 240-111155/1015	Lab Control Sample	Total/NA	Water	624	
MB 240-111155/27	Method Blank	Total/NA	Water	624	

GC/MS Semi VOA

Prep Batch: 111310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-31728-1	WT-12607-112013-EE-001	Total/NA	Water	625	
LCS 240-111310/8-A	Lab Control Sample	Total/NA	Water	625	
MB 240-111310/7-A	Method Blank	Total/NA	Water	625	

Prep Batch: 111318

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-31728-1	WT-12607-112013-EE-001	Total/NA	Water	3510C	
MB 240-111318/7-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 111473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-31728-1	WT-12607-112013-EE-001	Total/NA	Water	625	111310
LCS 240-111310/8-A	Lab Control Sample	Total/NA	Water	625	111310
MB 240-111310/7-A	Method Blank	Total/NA	Water	625	111310

Analysis Batch: 111557

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-31728-1	WT-12607-112013-EE-001	Total/NA	Water	625	111318
MB 240-111318/7-A	Method Blank	Total/NA	Water	625	111318

GC Semi VOA

Prep Batch: 111193

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-31728-1	WT-12607-112013-EE-001	Total/NA	Water	3520C	
LCS 240-111193/17-A	Lab Control Sample	Total/NA	Water	3520C	
MB 240-111193/16-A	Method Blank	Total/NA	Water	3520C	

Prep Batch: 111222

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-31728-1	WT-12607-112013-EE-001	Total/NA	Water	608	
LCS 240-111222/10-A	Lab Control Sample	Total/NA	Water	608	
MB 240-111222/9-A	Method Blank	Total/NA	Water	608	

Analysis Batch: 111381

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-31728-1	WT-12607-112013-EE-001	Total/NA	Water	608	111193
LCS 240-111193/17-A	Lab Control Sample	Total/NA	Water	608	111193
MB 240-111193/16-A	Method Blank	Total/NA	Water	608	111193

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QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T012, RACER Eckles Rd

TestAmerica Job ID: 240-31728-1

GC Semi VOA (Continued)

Analysis Batch: 112455

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-31728-1	WT-12607-112013-EE-001	Total/NA	Water	608	111222
LCS 240-111222/10-A	Lab Control Sample	Total/NA	Water	608	111222
MB 240-111222/9-A	Method Blank	Total/NA	Water	608	111222

Metals

Prep Batch: 111052

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-31728-1	WT-12607-112013-EE-001	Total Recoverable	Water	200.7	
LCS 240-111052/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
MB 240-111052/1-A	Method Blank	Total Recoverable	Water	200.7	

Prep Batch: 111054

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-31728-1	WT-12607-112013-EE-001	Total/NA	Water	245.1	
LCS 240-111054/2-A	Lab Control Sample	Total/NA	Water	245.1	
MB 240-111054/1-A	Method Blank	Total/NA	Water	245.1	

Analysis Batch: 111487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-31728-1	WT-12607-112013-EE-001	Total/NA	Water	245.1	111054
LCS 240-111054/2-A	Lab Control Sample	Total/NA	Water	245.1	111054
MB 240-111054/1-A	Method Blank	Total/NA	Water	245.1	111054

Analysis Batch: 111599

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-31728-1	WT-12607-112013-EE-001	Total Recoverable	Water	200.7 Rev 4.4	111052
LCS 240-111052/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	111052
MB 240-111052/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	111052

General Chemistry

Analysis Batch: 110856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-31728-1	WT-12607-112013-EE-001	Total/NA	Water	SM 3500 CR D	
LCS 240-110856/4	Lab Control Sample	Total/NA	Water	SM 3500 CR D	
MB 240-110856/3	Method Blank	Total/NA	Water	SM 3500 CR D	

Analysis Batch: 111421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-31728-1	WT-12607-112013-EE-001	Total/NA	Water	SM 2540D	
LCS 240-111421/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 240-111421/1	Method Blank	Total/NA	Water	SM 2540D	

Prep Batch: 111426

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-31728-1	WT-12607-112013-EE-001	Total/NA	Water	1664A	
LCS 240-111426/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 240-111426/1-A	Method Blank	Total/NA	Water	1664A	

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QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T012, RACER Eckles Rd

TestAmerica Job ID: 240-31728-1

General Chemistry (Continued)

Analysis Batch: 111453

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-31728-1	WT-12607-112013-EE-001	Total/NA	Water	1664A	111426
LCS 240-111426/2-A	Lab Control Sample	Total/NA	Water	1664A	111426
MB 240-111426/1-A	Method Blank	Total/NA	Water	1664A	111426

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T012, RACER Eckles Rd

TestAmerica Job ID: 240-31728-1

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

Lab Sample ID: MB 240-111155/27

Matrix: Water

Analysis Batch: 111155

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	ug/L			11/22/13 20:16	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	ug/L			11/22/13 20:16	1
1,1,2-Trichloroethane	1.0	U	1.0	ug/L			11/22/13 20:16	1
Xylenes, Total	1.0	U	1.0	ug/L			11/22/13 20:16	1
1,1-Dichloroethane	1.0	U	1.0	ug/L			11/22/13 20:16	1
1,1-Dichloroethene	1.0	U	1.0	ug/L			11/22/13 20:16	1
1,2-Dichloroethane	1.0	U	1.0	ug/L			11/22/13 20:16	1
1,2-Dichloropropane	1.0	U	1.0	ug/L			11/22/13 20:16	1
Acrolein	10	U	10	ug/L			11/22/13 20:16	1
Acrylonitrile	10	U	10	ug/L			11/22/13 20:16	1
Benzene	1.0	U	1.0	ug/L			11/22/13 20:16	1
Bromoform	1.0	U	1.0	ug/L			11/22/13 20:16	1
Bromomethane	1.0	U	1.0	ug/L			11/22/13 20:16	1
Carbon tetrachloride	1.0	U	1.0	ug/L			11/22/13 20:16	1
Chlorobenzene	1.0	U	1.0	ug/L			11/22/13 20:16	1
Chlorodibromomethane	1.0	U	1.0	ug/L			11/22/13 20:16	1
Chloroethane	1.0	U	1.0	ug/L			11/22/13 20:16	1
Chloroform	1.0	U	1.0	ug/L			11/22/13 20:16	1
Chloromethane	1.0	U	1.0	ug/L			11/22/13 20:16	1
2-Chloroethyl vinyl ether	2.0	U	2.0	ug/L			11/22/13 20:16	1
cis-1,3-Dichloropropene	1.0	U	1.0	ug/L			11/22/13 20:16	1
Dichlorobromomethane	1.0	U	1.0	ug/L			11/22/13 20:16	1
Ethylbenzene	1.0	U	1.0	ug/L			11/22/13 20:16	1
1,2-Dichlorobenzene	1.0	U	1.0	ug/L			11/22/13 20:16	1
Tetrachloroethene	1.0	U	1.0	ug/L			11/22/13 20:16	1
1,3-Dichlorobenzene	1.0	U	1.0	ug/L			11/22/13 20:16	1
Toluene	1.0	U	1.0	ug/L			11/22/13 20:16	1
1,4-Dichlorobenzene	1.0	U	1.0	ug/L			11/22/13 20:16	1
trans-1,3-Dichloropropene	1.0	U	1.0	ug/L			11/22/13 20:16	1
Trichloroethene	1.0	U	1.0	ug/L			11/22/13 20:16	1
Vinyl chloride	1.0	U	1.0	ug/L			11/22/13 20:16	1
Methylene Chloride	1.0	U	1.0	ug/L			11/22/13 20:16	1
trans-1,2-Dichloroethene	1.0	U	1.0	ug/L			11/22/13 20:16	1
1,3-Dichloropropene, Total	1.0	U	1.0	ug/L			11/22/13 20:16	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		81 - 112		11/22/13 20:16	1
1,2-Dichloroethane-d4 (Surr)	90		80 - 125		11/22/13 20:16	1
Toluene-d8 (Surr)	98		84 - 110		11/22/13 20:16	1

Lab Sample ID: LCS 240-111155/1015

Matrix: Water

Analysis Batch: 111155

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloroethane	20.0	18.3		ug/L		92	52 - 150
1,1-Dichloroethane	20.0	18.7		ug/L		94	59 - 155
1,1-Dichloroethene	20.0	19.9		ug/L		100	10 - 234

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QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T012, RACER Eckles Rd

TestAmerica Job ID: 240-31728-1

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

Lab Sample ID: LCS 240-111155/1015

Matrix: Water

Analysis Batch: 111155

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	20.0	18.1		ug/L		91	49 - 155
1,2-Dichloropropane	20.0	18.8		ug/L		94	10 - 210
Benzene	20.0	19.1		ug/L		96	37 - 151
Bromoform	20.0	22.0		ug/L		110	45 - 169
Bromomethane	20.0	18.1		ug/L		91	10 - 242
Carbon tetrachloride	20.0	21.2		ug/L		106	70 - 140
Chlorobenzene	20.0	19.0		ug/L		95	37 - 160
Chlorodibromomethane	20.0	22.5		ug/L		113	53 - 149
Chloroethane	20.0	20.1		ug/L		101	14 - 230
Chloroform	20.0	19.5		ug/L		97	51 - 138
Chloromethane	20.0	18.6		ug/L		93	10 - 273
2-Chloroethyl vinyl ether	24.0	22.7		ug/L		95	10 - 305
cis-1,3-Dichloropropene	20.0	20.2		ug/L		101	10 - 227
Dichlorobromomethane	20.0	20.3		ug/L		101	35 - 155
Ethylbenzene	20.0	19.5		ug/L		98	37 - 162
1,2-Dichlorobenzene	20.0	18.9		ug/L		94	18 - 190
Tetrachloroethene	20.0	18.2		ug/L		91	64 - 148
1,3-Dichlorobenzene	20.0	18.6		ug/L		93	59 - 156
Toluene	20.0	18.5		ug/L		93	47 - 150
1,4-Dichlorobenzene	20.0	18.5		ug/L		93	18 - 190
trans-1,3-Dichloropropene	20.0	22.9		ug/L		115	17 - 183
Trichloroethene	20.0	19.3		ug/L		97	71 - 157
Vinyl chloride	20.0	20.5		ug/L		102	10 - 251
Methylene Chloride	20.0	16.1		ug/L		81	10 - 221
trans-1,2-Dichloroethene	20.0	19.1		ug/L		95	54 - 156

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	91		81 - 112
1,2-Dichloroethane-d4 (Surr)	84		80 - 125
Toluene-d8 (Surr)	94		84 - 110

Method: 625 - Dioxin Screen (GC/MS SIM)

Lab Sample ID: MB 240-111318/7-A

Matrix: Water

Analysis Batch: 111557

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 111318

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	NEG			ng/uL		11/25/13 11:47	11/27/13 14:55	1

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

Lab Sample ID: MB 240-111310/7-A

Matrix: Water

Analysis Batch: 111473

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 111310

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T012, RACER Eckles Rd

TestAmerica Job ID: 240-31728-1

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

Lab Sample ID: MB 240-111310/7-A

Matrix: Water

Analysis Batch: 111473

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 111310

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,6-Trichlorophenol	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
2,4-Dichlorophenol	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
2,4-Dimethylphenol	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
2,4-Dinitrophenol	50	U	50	ug/L		11/25/13 11:40	11/26/13 13:54	1
2,4-Dinitrotoluene	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
2,6-Dinitrotoluene	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
2-Chloronaphthalene	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
2-Chlorophenol	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
2-Nitrophenol	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
3,3'-Dichlorobenzidine	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
4,6-Dinitro-2-methylphenol	50	U	50	ug/L		11/25/13 11:40	11/26/13 13:54	1
4-Bromophenyl phenyl ether	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
4-Chlorophenyl phenyl ether	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
4-Nitrophenol	50	U	50	ug/L		11/25/13 11:40	11/26/13 13:54	1
Acenaphthene	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
Acenaphthylene	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
Anthracene	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
Benzidine	5.0	U	5.0	ug/L		11/25/13 11:40	11/26/13 13:54	1
Benzo[a]anthracene	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
Benzo[a]pyrene	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
Benzo[b]fluoranthene	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
Benzo[g,h,i]perylene	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
Benzo[k]fluoranthene	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
Bis(2-chloroethoxy)methane	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
Bis(2-chloroethyl)ether	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
Bis(2-ethylhexyl) phthalate	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
bis (2-chloroisopropyl) ether	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
Butyl benzyl phthalate	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
Chrysene	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
Dibenz(a,h)anthracene	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
Diethyl phthalate	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
Dimethyl phthalate	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
Di-n-butyl phthalate	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
Di-n-octyl phthalate	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
Fluoranthene	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
Fluorene	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
Hexachlorobenzene	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
Hexachlorobutadiene	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
Hexachlorocyclopentadiene	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
Hexachloroethane	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
Indeno[1,2,3-cd]pyrene	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
Isophorone	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
Naphthalene	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
Nitrobenzene	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
N-Nitrosodimethylamine	1.0	U	1.0	ug/L		11/25/13 11:40	11/26/13 13:54	1
N-Nitrosodi-n-propylamine	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
N-Nitrosodiphenylamine	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
4-Chloro-3-methylphenol	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T012, RACER Eckles Rd

TestAmerica Job ID: 240-31728-1

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

Lab Sample ID: MB 240-111310/7-A

Matrix: Water

Analysis Batch: 111473

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 111310

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
Phenanthrene	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
Phenol	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
Pyrene	10	U	10	ug/L		11/25/13 11:40	11/26/13 13:54	1
1,2-Diphenylhydrazine	1.0	U	1.0	ug/L		11/25/13 11:40	11/26/13 13:54	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	55		10 - 135	11/25/13 11:40	11/26/13 13:54	1
2,4,6-Tribromophenol	78		10 - 142	11/25/13 11:40	11/26/13 13:54	1
Nitrobenzene-d5	74		44 - 110	11/25/13 11:40	11/26/13 13:54	1
Phenol-d5	37		10 - 132	11/25/13 11:40	11/26/13 13:54	1
Terphenyl-d14	94		24 - 135	11/25/13 11:40	11/26/13 13:54	1
2-Fluorobiphenyl (Surr)	66		38 - 110	11/25/13 11:40	11/26/13 13:54	1

Lab Sample ID: LCS 240-111310/8-A

Matrix: Water

Analysis Batch: 111473

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 111310

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	20.0	14.0		ug/L		70	44 - 142
2,4-Dichlorophenol	20.0	17.1		ug/L		85	39 - 135
2,4-Dimethylphenol	20.0	14.5		ug/L		72	32 - 119
2,4-Dinitrophenol	40.0	50	U	ug/L		86	0 - 191
2,4-Dinitrotoluene	20.0	18.0		ug/L		90	39 - 139
2,6-Dinitrotoluene	20.0	17.6		ug/L		88	50 - 158
2-Chloronaphthalene	20.0	15.4		ug/L		77	60 - 118
2-Chlorophenol	20.0	15.9		ug/L		79	23 - 134
2-Nitrophenol	20.0	17.2		ug/L		86	29 - 182
3,3'-Dichlorobenzidine	40.0	32.2		ug/L		80	0 - 262
4,6-Dinitro-2-methylphenol	40.0	50	U	ug/L		106	0 - 181
4-Bromophenyl phenyl ether	20.0	19.1		ug/L		95	53 - 127
4-Chlorophenyl phenyl ether	20.0	16.9		ug/L		84	25 - 158
4-Nitrophenol	40.0	50	U	ug/L		39	0 - 132
Acenaphthene	20.0	15.7		ug/L		79	47 - 145
Acenaphthylene	20.0	15.0		ug/L		75	33 - 145
Anthracene	20.0	17.3		ug/L		87	27 - 133
Benzo[a]anthracene	20.0	17.9		ug/L		89	33 - 143
Benzo[a]pyrene	20.0	17.4		ug/L		87	17 - 163
Benzo[b]fluoranthene	20.0	18.4		ug/L		92	24 - 159
Benzo[g,h,i]perylene	20.0	18.7		ug/L		93	0 - 219
Benzo[k]fluoranthene	20.0	17.3		ug/L		87	11 - 162
Bis(2-chloroethoxy)methane	20.0	17.3		ug/L		86	33 - 184
Bis(2-chloroethyl)ether	20.0	15.2		ug/L		76	12 - 158
Bis(2-ethylhexyl) phthalate	20.0	18.7		ug/L		93	8 - 158
Butyl benzyl phthalate	20.0	18.9		ug/L		95	0 - 152
Chrysene	20.0	18.1		ug/L		91	17 - 168
Dibenz[a,h]anthracene	20.0	18.2		ug/L		91	0 - 227
Diethyl phthalate	20.0	17.7		ug/L		88	0 - 114

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T012, RACER Eckles Rd

TestAmerica Job ID: 240-31728-1

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

Lab Sample ID: LCS 240-111310/8-A

Matrix: Water

Analysis Batch: 111473

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 111310

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dimethyl phthalate	20.0	17.4		ug/L		87	0 - 112
Di-n-butyl phthalate	20.0	19.1		ug/L		95	1 - 118
Di-n-octyl phthalate	20.0	17.5		ug/L		88	4 - 146
Fluoranthene	20.0	17.9		ug/L		90	26 - 137
Fluorene	20.0	16.9		ug/L		84	59 - 121
Hexachlorobenzene	20.0	17.4		ug/L		87	0 - 152
Hexachlorobutadiene	20.0	12.3		ug/L		61	24 - 116
Hexachloroethane	20.0	10.3		ug/L		51	40 - 113
Indeno[1,2,3-cd]pyrene	20.0	18.4		ug/L		92	0 - 171
Isophorone	20.0	16.6		ug/L		83	21 - 196
Naphthalene	20.0	14.7		ug/L		74	21 - 133
Nitrobenzene	20.0	16.0		ug/L		80	35 - 180
N-Nitrosodi-n-propylamine	20.0	16.5		ug/L		82	0 - 230
4-Chloro-3-methylphenol	20.0	16.6		ug/L		83	22 - 147
Pentachlorophenol	40.0	31.1		ug/L		78	14 - 176
Phenanthrene	20.0	17.3		ug/L		86	54 - 120
Phenol	20.0	10	U	ug/L		37	5 - 112
Pyrene	20.0	19.2		ug/L		96	52 - 115

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorophenol	49		10 - 135
2,4,6-Tribromophenol	85		10 - 142
Nitrobenzene-d5	81		44 - 110
Phenol-d5	35		10 - 132
Terphenyl-d14	100		24 - 135
2-Fluorobiphenyl (Surr)	78		38 - 110

Method: 608 - Organochlorine Pesticides in Water

Lab Sample ID: MB 240-111222/9-A

Matrix: Water

Analysis Batch: 112455

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 111222

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	0.050	U	0.050	ug/L		11/25/13 06:50	12/06/13 01:19	1
alpha-BHC	0.050	U	0.050	ug/L		11/25/13 06:50	12/06/13 01:19	1
beta-BHC	0.050	U	0.050	ug/L		11/25/13 06:50	12/06/13 01:19	1
delta-BHC	0.050	U	0.050	ug/L		11/25/13 06:50	12/06/13 01:19	1
gamma-BHC (Lindane)	0.050	U	0.050	ug/L		11/25/13 06:50	12/06/13 01:19	1
Chlordane (technical)	0.50	U	0.50	ug/L		11/25/13 06:50	12/06/13 01:19	1
Chlordane (technical) Peak 1	0.50	U	0.50	ug/L		11/25/13 06:50	12/06/13 01:19	1
Chlordane (technical) Peak 2	0.50	U	0.50	ug/L		11/25/13 06:50	12/06/13 01:19	1
Chlordane (technical) Peak 3	0.50	U	0.50	ug/L		11/25/13 06:50	12/06/13 01:19	1
Chlordane (technical) Peak 4	0.50	U	0.50	ug/L		11/25/13 06:50	12/06/13 01:19	1
4,4'-DDD	0.050	U	0.050	ug/L		11/25/13 06:50	12/06/13 01:19	1
4,4'-DDE	0.050	U	0.050	ug/L		11/25/13 06:50	12/06/13 01:19	1
4,4'-DDT	0.050	U	0.050	ug/L		11/25/13 06:50	12/06/13 01:19	1
Dieldrin	0.050	U	0.050	ug/L		11/25/13 06:50	12/06/13 01:19	1

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T012, RACER Eckles Rd

TestAmerica Job ID: 240-31728-1

Method: 608 - Organochlorine Pesticides in Water (Continued)

Lab Sample ID: MB 240-111222/9-A

Matrix: Water

Analysis Batch: 112455

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 111222

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan I	0.050	U	0.050	ug/L		11/25/13 06:50	12/06/13 01:19	1
Endosulfan II	0.050	U	0.050	ug/L		11/25/13 06:50	12/06/13 01:19	1
Endosulfan sulfate	0.050	U	0.050	ug/L		11/25/13 06:50	12/06/13 01:19	1
Endrin	0.050	U	0.050	ug/L		11/25/13 06:50	12/06/13 01:19	1
Endrin aldehyde	0.050	U	0.050	ug/L		11/25/13 06:50	12/06/13 01:19	1
Heptachlor	0.050	U	0.050	ug/L		11/25/13 06:50	12/06/13 01:19	1
Heptachlor epoxide	0.050	U	0.050	ug/L		11/25/13 06:50	12/06/13 01:19	1
Toxaphene	2.0	U	2.0	ug/L		11/25/13 06:50	12/06/13 01:19	1
Toxaphene Peak 1	2.0	U	2.0	ug/L		11/25/13 06:50	12/06/13 01:19	1
Toxaphene Peak 2	2.0	U	2.0	ug/L		11/25/13 06:50	12/06/13 01:19	1
Toxaphene Peak 3	2.0	U	2.0	ug/L		11/25/13 06:50	12/06/13 01:19	1
Toxaphene Peak 4	2.0	U	2.0	ug/L		11/25/13 06:50	12/06/13 01:19	1
Toxaphene Peak 5	2.0	U	2.0	ug/L		11/25/13 06:50	12/06/13 01:19	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	90		10 - 151	11/25/13 06:50	12/06/13 01:19	1
Tetrachloro-m-xylene	73		10 - 151	11/25/13 06:50	12/06/13 01:19	1

Lab Sample ID: LCS 240-111222/10-A

Matrix: Water

Analysis Batch: 112455

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 111222

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aldrin	0.500	0.621	*	ug/L		124	42 - 122
alpha-BHC	0.500	0.600		ug/L		120	37 - 134
beta-BHC	0.500	0.679		ug/L		136	17 - 147
delta-BHC	0.500	0.647		ug/L		129	19 - 140
gamma-BHC (Lindane)	0.500	0.719	*	ug/L		144	32 - 127
4,4'-DDD	0.500	0.743	*	ug/L		149	31 - 141
4,4'-DDE	0.500	0.663		ug/L		133	30 - 145
4,4'-DDT	0.500	0.650		ug/L		130	25 - 160
Dieldrin	0.500	0.716		ug/L		143	36 - 146
Endosulfan I	0.500	0.506		ug/L		101	45 - 153
Endosulfan II	0.500	0.545		ug/L		109	10 - 202
Endosulfan sulfate	0.500	0.664		ug/L		133	26 - 144
Endrin	0.500	0.711		ug/L		142	30 - 147
Heptachlor	0.500	0.567	*	ug/L		113	34 - 111
Heptachlor epoxide	0.500	0.719	*	ug/L		144	37 - 142

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	90		10 - 151
Tetrachloro-m-xylene	87		10 - 151

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T012, RACER Eckles Rd

TestAmerica Job ID: 240-31728-1

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 240-111193/16-A

Matrix: Water

Analysis Batch: 111381

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 111193

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	ug/L		11/23/13 09:27	11/26/13 05:17	1
Aroclor-1221	0.10	U	0.10	ug/L		11/23/13 09:27	11/26/13 05:17	1
Aroclor-1232	0.10	U	0.10	ug/L		11/23/13 09:27	11/26/13 05:17	1
Aroclor-1242	0.10	U	0.10	ug/L		11/23/13 09:27	11/26/13 05:17	1
Aroclor-1248	0.10	U	0.10	ug/L		11/23/13 09:27	11/26/13 05:17	1
Aroclor-1254	0.10	U	0.10	ug/L		11/23/13 09:27	11/26/13 05:17	1
Aroclor-1260	0.10	U	0.10	ug/L		11/23/13 09:27	11/26/13 05:17	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	73		10 - 114	11/23/13 09:27	11/26/13 05:17	1
Tetrachloro-m-xylene	79		15 - 131	11/23/13 09:27	11/26/13 05:17	1

Lab Sample ID: LCS 240-111193/17-A

Matrix: Water

Analysis Batch: 111381

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 111193

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	2.50	2.31		ug/L		92	50 - 114
Aroclor-1260	2.50	2.10		ug/L		84	8 - 127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	155	X	10 - 114
Tetrachloro-m-xylene	74		15 - 131

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 240-111052/1-A

Matrix: Water

Analysis Batch: 111599

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 111052

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.050	U	0.050	mg/L		11/22/13 09:19	11/27/13 08:27	1
Nickel	0.010	U	0.010	mg/L		11/22/13 09:19	11/27/13 08:27	1
Lead	0.050	U	0.050	mg/L		11/22/13 09:19	11/27/13 08:27	1
Zinc	0.0225		0.020	mg/L		11/22/13 09:19	11/27/13 08:27	1

Lab Sample ID: LCS 240-111052/2-A

Matrix: Water

Analysis Batch: 111599

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 111052

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	0.200	0.204		mg/L		102	85 - 115
Nickel	0.500	0.503		mg/L		101	85 - 115
Lead	0.500	0.488		mg/L		98	85 - 115
Zinc	0.500	0.543		mg/L		109	85 - 115

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T012, RACER Eckles Rd

TestAmerica Job ID: 240-31728-1

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 240-111054/1-A
Matrix: Water
Analysis Batch: 111487

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 111054

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		11/22/13 12:45	11/26/13 14:25	1

Lab Sample ID: LCS 240-111054/2-A
Matrix: Water
Analysis Batch: 111487

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 111054

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00500	0.00465		mg/L		93	85 - 115

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 240-111426/1-A
Matrix: Water
Analysis Batch: 111453

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 111426

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	5.0	U	5.0	mg/L		11/26/13 09:47	11/26/13 09:47	1

Lab Sample ID: LCS 240-111426/2-A
Matrix: Water
Analysis Batch: 111453

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 111426

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM	40.0	31.3		mg/L		78	78 - 114

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

Lab Sample ID: MB 240-111421/1
Matrix: Water
Analysis Batch: 111421

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	4.0	U	4.0	mg/L			11/26/13 09:05	1

Lab Sample ID: LCS 240-111421/2
Matrix: Water
Analysis Batch: 111421

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	48.0	38.0		mg/L		79	73 - 113

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T012, RACER Eckles Rd

TestAmerica Job ID: 240-31728-1

Method: SM 3500 CR D - Chromium, Hexavalent

Lab Sample ID: MB 240-110856/3

Matrix: Water

Analysis Batch: 110856

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0050	U	0.0050	0.0020 mg/L			11/21/13 09:07	1

Lab Sample ID: LCS 240-110856/4

Matrix: Water

Analysis Batch: 110856

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.250	0.236		mg/L		94	80 - 118

Surrogate Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T012, RACER Eckles Rd

TestAmerica Job ID: 240-31728-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		BFB (81-112)	12DCE (80-125)	TOL (84-110)
240-31728-1	WT-12607-112013-EE-001	86	85	92
LCS 240-111155/1015	Lab Control Sample	91	84	94
MB 240-111155/27	Method Blank	98	90	98

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
12DCE = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		2FP (10-135)	TBP (10-142)	NBZ (44-110)	PHL (10-132)	TPH (24-135)	FBP (38-110)
240-31728-1	WT-12607-112013-EE-001	43	77	55	26	35	49
LCS 240-111310/8-A	Lab Control Sample	49	85	81	35	100	78
MB 240-111310/7-A	Method Blank	55	78	74	37	94	66

Surrogate Legend

2FP = 2-Fluorophenol
TBP = 2,4,6-Tribromophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPH = Terphenyl-d14
FBP = 2-Fluorobiphenyl (Surr)

Method: 608 - Organochlorine Pesticides in Water

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCB1 (10-151)	DCB2 (10-151)	TCX1 (10-151)	TCX2 (10-151)
240-31728-1	WT-12607-112013-EE-001	70	74	69	74
LCS 240-111222/10-A	Lab Control Sample	90	97	87	87
MB 240-111222/9-A	Method Blank	90	92	73	75

Surrogate Legend

DCB = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCB2 (10-114)	TCX2 (15-131)
240-31728-1	WT-12607-112013-EE-001	63	68
LCS 240-111193/17-A	Lab Control Sample	155 X	74
MB 240-111193/16-A	Method Blank	73	79

TestAmerica Canton

Surrogate Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T012, RACER Eckles Rd

TestAmerica Job ID: 240-31728-1

Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

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Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T012, RACER Eckles Rd

TestAmerica Job ID: 240-31728-1

Client Sample ID: WT-12607-112013-EE-001

Lab Sample ID: 240-31728-1

Date Collected: 11/20/13 13:00

Matrix: Water

Date Received: 11/21/13 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	111155	11/22/13 23:46	TJL1	TAL CAN
Total/NA	Prep	625			111310	11/25/13 11:40	KEC	TAL CAN
Total/NA	Analysis	625		1	111473	11/26/13 18:21	MRU	TAL CAN
Total/NA	Prep	3510C			111318	11/25/13 11:47	KEC	TAL CAN
Total/NA	Analysis	625		1	111557	11/27/13 15:14	MRU	TAL CAN
Total/NA	Prep	3520C			111193	11/23/13 09:27	CSC	TAL CAN
Total/NA	Analysis	608		1	111381	11/26/13 04:35	LSH	TAL CAN
Total/NA	Prep	608			111222	11/25/13 06:50	KEC	TAL CAN
Total/NA	Analysis	608		1	112455	12/05/13 23:17	RES	TAL CAN
Total/NA	Prep	245.1			111054	11/22/13 12:45	LPM	TAL CAN
Total/NA	Analysis	245.1		1	111487	11/26/13 15:04	AMM2	TAL CAN
Total Recoverable	Prep	200.7			111052	11/22/13 09:19	LPM	TAL CAN
Total Recoverable	Analysis	200.7 Rev 4.4		1	111599	11/26/13 19:41	NJT	TAL CAN
Total/NA	Analysis	SM 3500 CR D		1	110856	11/21/13 11:26	BLW	TAL CAN
Total/NA	Analysis	SM 2540D		1	111421	11/26/13 09:05	LCN	TAL CAN
Total/NA	Prep	1664A			111426	11/26/13 09:47	WAL	TAL CAN
Total/NA	Analysis	1664A		1	111453	11/26/13 09:47	WAL	TAL CAN

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Certification Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T012, RACER Eckles Rd

TestAmerica Job ID: 240-31728-1

Laboratory: TestAmerica Canton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAP	9	01144CA	06-30-14
Connecticut	State Program	1	PH-0590	12-31-13 *
Florida	NELAP	4	E87225	06-30-14
Georgia	State Program	4	N/A	06-30-14
Illinois	NELAP	5	200004	07-31-14 *
Kansas	NELAP	7	E-10336	01-31-14 *
Kentucky (UST)	State Program	4	58	06-30-14
L-A-B	DoD ELAP		L2315	07-18-16
Nevada	State Program	9	OH-000482008A	07-31-14
New Jersey	NELAP	2	OH001	06-30-14
New York	NELAP	2	10975	04-01-14
Ohio VAP	State Program	5	CL0024	10-31-15
Pennsylvania	NELAP	3	68-00340	08-31-14 *
Texas	NELAP	6		08-31-14 *
USDA	Federal		P330-13-00319	11-26-16
Virginia	NELAP	3	460175	09-14-14
Washington	State Program	10	C971	01-12-14 *
West Virginia DEP	State Program	3	210	12-31-13 *
Wisconsin	State Program	5	999518190	08-31-14

* Expired certification is currently pending renewal and is considered valid.

TestAmerica Canton

**CHAIN OF CUSTODY
AND
RECEIVING DOCUMENTS**



240-31728 Chain of Custody



CONESTOGA-ROVERS
& ASSOCIATES

CHAIN OF CUSTODY RECORD

14496 Sheldon Road, Suite #200, Plymouth, Michigan 48170

Phone: (734) 453-5123

Fax: (734) 453-5201

3,6

COC NO.: PL-13940

PAGE 1 OF 1

(See Reverse Side for Instructions)

Project No/Phase/Task Code: 12607-TU13-003		Laboratory Name: Test America		Lab Location: N Canton, OH		SSOW ID: 12607-TU13-012	
Project Name: RACER Livonia GWTP		Lab Contact: Denise Hedler		Lab Quote No:		Cooler No:	
Project Location: Livonia, MI		CONTAINER QUANTITY & PRESERVATION		ANALYSIS REQUESTED (See Back of COC for Definitions)		Carrier:	
Chemistry Contact: Rawa Fleisher, CRA		SAMPLE TYPE		Total Containers/Sample		Airbill No:	
Sampler(s): Erik Engvall, CRA		Grab (g) or Comp (g)		Other:		Date Shipped:	
SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)		DATE (mm/dd/yyyy)		TIME (hh:mm)		COMMENTS/SPECIAL INSTRUCTIONS:	
WT-12607-112013-EE-001		11/20/13		1300			
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Login # : 31728

Client CRA

Site Name _____

Cooler unpacked by:

Cooler Received on 11-21-13

Opened on 4-27-13

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: ☒ Wet Ice ☐ Blue Ice ☐ Dry Ice ☐ Water ☐ None

- IR GUN# A (CF +0 °C) Observed Cooler Temp. 3.6 °C Corrected Cooler Temp. 3.6 °C

IR GUN# 4 (CF -1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

IR GUN# 5 (CF +1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

IR GUN# 8 (CF +1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity Yes 1 No 1

-Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA

-Were custody seals on the bottle(s)? Yes No

3. Shippers' packing slip attached to the cooler(s)? Yes No

4. Did custody papers accompany the sample(s)? Yes No

5. Were the custody papers relinquished & signed in the appropriate place? Yes No

6. Did all bottles arrive in good condition (Unbroken)? Yes No

7. Could all bottle labels be reconciled with the COC? Yes No

8. Were correct bottle(s) used for the test(s) indicated? Yes No

9. Sufficient quantity received to perform indicated analyses? Yes No

10. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC391902

11. Were VOAs on the COC? Yes No

12. Were air bubbles >6 mm in any VOA vials? Yes ☒ No ☐ NA

13. Was a trip blank present in the cooler(s)? Yes ☐ No ☒

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____

Concerning

~~Samples processed by:~~

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u> <u>pH</u>	<u>Preservative</u> <u>Added (mls)</u>	<u>Lot #</u>
WT-12607-112013-EE-001	240-31728-E-1	Plastic 500ml - with Nitric Acid	<2	_____	_____
WT-12607-112013-EE-001	240-31728-L-1	Amber Glass 1 liter - Sulfuric Acid	<2	_____	_____
WT-12607-112013-EE-001	240-31728-M-1	Amber Glass 1 liter - Sulfuric Acid	<2	_____	_____

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Canton

4101 Shuffel Street NW

North Canton, OH 44720

Tel: (330)497-9396

TestAmerica Job ID: 240-32698-1

Client Project/Site: 12607, T01-012, RACER Eckles Rd

For:

Conestoga-Rovers & Associates, Inc.

14496 Sheldon Road, Suite 200

Plymouth, Michigan 48170

Attn: Rawa Fleisher



Authorized for release by:

12/27/2013 1:34:09 PM

Denise Heckler, Project Manager II

(330)966-9477

denise.heckler@testamericainc.com

LINKS

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results through

TotalAccess

Have a Question?



Visit us at:

www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607, T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-32698-1

Job ID: 240-32698-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Conestoga-Rovers & Associates, Inc.

Project: 12607, T01-012, RACER Eckles Rd

Report Number: 240-32698-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 12/19/2013; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 4.4 C.

POLYCHLORINATED BIPHENYLS (PCBS)

Sample WT-12607-121813-EE-001 (240-32698-1) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA Method 608. The samples were prepared on 12/20/2013 and analyzed on 12/23/2013.

No difficulties were encountered during the PCBs analysis.

All quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICP)

Sample WT-12607-121813-EE-001 (240-32698-1) was analyzed for total recoverable metals (ICP) in accordance with EPA Method 200.7. The samples were prepared on 12/20/2013 and analyzed on 12/23/2013.

Requested reporting limits (RL) that fall below the laboratory's verified standard quantitation limit have less certainty (i.e., are estimated) and must be used at the client's discretion. The continuing calibration blanks and method blanks may not support the lower RL.

No difficulties were encountered during the metals analysis.

Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607, T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-32698-1

Job ID: 240-32698-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

All quality control parameters were within the acceptance limits.

MERCURY

Sample WT-12607-121813-EE-001 (240-32698-1) was analyzed for mercury in accordance with EPA Method 245.1. The samples were prepared on 12/20/2013 and analyzed on 12/24/2013.

No difficulties were encountered during the mercury analysis.

All quality control parameters were within the acceptance limits.

N-HEXANE EXTRACTABLE MATERIAL

Sample WT-12607-121813-EE-001 (240-32698-1) was analyzed for n-hexane extractable material in accordance with EPA Method 1664A. The samples were prepared and analyzed on 12/23/2013.

No difficulties were encountered during the HEM analysis.

All other quality control parameters were within the acceptance limits.

TOTAL SUSPENDED SOLIDS

Sample WT-12607-121813-EE-001 (240-32698-1) was analyzed for total suspended solids in accordance with SM 2540D. The samples were analyzed on 12/20/2013.

No difficulties were encountered during the TSS analysis.

All quality control parameters were within the acceptance limits.

HEXAVALENT CHROMIUM

Sample WT-12607-121813-EE-001 (240-32698-1) was analyzed for hexavalent chromium in accordance with SM 3500 CR D. The samples were analyzed on 12/19/2013.

No difficulties were encountered during the hexavalent chromium analysis.

All quality control parameters were within the acceptance limits.

Definitions/Glossary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607, T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-32698-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Sample Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607, T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-32698-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-32698-1	WT-12607-121813-EE-001	Water	12/18/13 16:00	12/19/13 10:30

Detection Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607, T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-32698-1

Client Sample ID: WT-12607-121813-EE-001

Lab Sample ID: 240-32698-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.70		0.050	mg/L	1		200.7 Rev 4.4	Total
Nickel	0.093		0.010	mg/L	1		200.7 Rev 4.4	Recoverable Total
Total Suspended Solids	8.0		4.0	mg/L	1		SM 2540D	Recoverable Total/NA
Cr (VI)	0.20		0.0050	mg/L	1		SM 3500 CR D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

Method Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607, T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-32698-1

Method	Method Description	Protocol	Laboratory
608	Polychlorinated Biphenyls (PCBs) (GC)	40CFR136A	TAL CAN
200.7 Rev 4.4	Metals (ICP)	EPA	TAL CAN
245.1	Mercury (CVAA)	EPA	TAL CAN
1664A	HEM and SGT-HEM	1664A	TAL CAN
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL CAN
SM 3500 CR D	Chromium, Hexavalent	SM	TAL CAN

Protocol References:

1664A = EPA-821-98-002

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

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607, T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-32698-1

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Client Sample ID: WT-12607-121813-EE-001

Date Collected: 12/18/13 16:00

Date Received: 12/19/13 10:30

Lab Sample ID: 240-32698-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	ug/L		12/20/13 07:47	12/23/13 20:05	1
Aroclor-1221	0.095	U	0.095	ug/L		12/20/13 07:47	12/23/13 20:05	1
Aroclor-1232	0.095	U	0.095	ug/L		12/20/13 07:47	12/23/13 20:05	1
Aroclor-1242	0.095	U	0.095	ug/L		12/20/13 07:47	12/23/13 20:05	1
Aroclor-1248	0.095	U	0.095	ug/L		12/20/13 07:47	12/23/13 20:05	1
Aroclor-1254	0.095	U	0.095	ug/L		12/20/13 07:47	12/23/13 20:05	1
Aroclor-1260	0.095	U	0.095	ug/L		12/20/13 07:47	12/23/13 20:05	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	70		10 - 114			12/20/13 07:47	12/23/13 20:05	1
Tetrachloro-m-xylene	73		15 - 131			12/20/13 07:47	12/23/13 20:05	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607, T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-32698-1

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Client Sample ID: WT-12607-121813-EE-001

Date Collected: 12/18/13 16:00

Date Received: 12/19/13 10:30

Lab Sample ID: 240-32698-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.70		0.050	mg/L		12/20/13 08:43	12/23/13 20:22	1
Nickel	0.093		0.010	mg/L		12/20/13 08:43	12/23/13 20:22	1
Lead	0.050	U	0.050	mg/L		12/20/13 08:43	12/23/13 20:22	1
Zinc	0.020	U	0.020	mg/L		12/20/13 08:43	12/23/13 20:22	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607, T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-32698-1

Method: 245.1 - Mercury (CVAA)

Client Sample ID: WT-12607-121813-EE-001

Date Collected: 12/18/13 16:00

Date Received: 12/19/13 10:30

Lab Sample ID: 240-32698-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		12/20/13 12:45	12/24/13 15:17	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607, T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-32698-1

General Chemistry

Client Sample ID: WT-12607-121813-EE-001

Date Collected: 12/18/13 16:00

Date Received: 12/19/13 10:30

Lab Sample ID: 240-32698-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	4.7	U	4.7	mg/L		12/23/13 09:06	12/23/13 09:06	1
Total Suspended Solids	8.0		4.0	mg/L			12/20/13 08:53	1
Cr (VI)	0.20		0.0050	mg/L			12/19/13 11:46	1

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607, T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-32698-1

GC Semi VOA

Prep Batch: 114529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-32698-1	WT-12607-121813-EE-001	Total/NA	Water	3510C	
LCS 240-114529/20-A	Lab Control Sample	Total/NA	Water	3510C	
MB 240-114529/19-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 114847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-32698-1	WT-12607-121813-EE-001	Total/NA	Water	608	114529
LCS 240-114529/20-A	Lab Control Sample	Total/NA	Water	608	114529
MB 240-114529/19-A	Method Blank	Total/NA	Water	608	114529

Metals

Prep Batch: 114551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-32698-1	WT-12607-121813-EE-001	Total Recoverable	Water	200.7	
240-32698-1 MS	WT-12607-121813-EE-001	Total Recoverable	Water	200.7	
240-32698-1 MSD	WT-12607-121813-EE-001	Total Recoverable	Water	200.7	
LCS 240-114551/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
MB 240-114551/1-A	Method Blank	Total Recoverable	Water	200.7	

Prep Batch: 114553

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-32698-1	WT-12607-121813-EE-001	Total/NA	Water	245.1	
240-32698-1 MS	WT-12607-121813-EE-001	Total/NA	Water	245.1	
240-32698-1 MSD	WT-12607-121813-EE-001	Total/NA	Water	245.1	
LCS 240-114553/2-A	Lab Control Sample	Total/NA	Water	245.1	
MB 240-114553/1-A	Method Blank	Total/NA	Water	245.1	

Analysis Batch: 114822

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-32698-1	WT-12607-121813-EE-001	Total Recoverable	Water	200.7 Rev 4.4	114551
240-32698-1 MS	WT-12607-121813-EE-001	Total Recoverable	Water	200.7 Rev 4.4	114551
240-32698-1 MSD	WT-12607-121813-EE-001	Total Recoverable	Water	200.7 Rev 4.4	114551
LCS 240-114551/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	114551
MB 240-114551/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	114551

Analysis Batch: 114993

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-32698-1	WT-12607-121813-EE-001	Total/NA	Water	245.1	114553
240-32698-1 MS	WT-12607-121813-EE-001	Total/NA	Water	245.1	114553
240-32698-1 MSD	WT-12607-121813-EE-001	Total/NA	Water	245.1	114553
LCS 240-114553/2-A	Lab Control Sample	Total/NA	Water	245.1	114553
MB 240-114553/1-A	Method Blank	Total/NA	Water	245.1	114553

General Chemistry

Analysis Batch: 114375

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-32698-1	WT-12607-121813-EE-001	Total/NA	Water	SM 3500 CR D	
LCS 240-114375/4	Lab Control Sample	Total/NA	Water	SM 3500 CR D	

TestAmerica Canton

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607, T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-32698-1

General Chemistry (Continued)

Analysis Batch: 114375 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-114375/3	Method Blank	Total/NA	Water	SM 3500 CR D	

Analysis Batch: 114555

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-32698-1	WT-12607-121813-EE-001	Total/NA	Water	SM 2540D	
LCS 240-114555/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 240-114555/1	Method Blank	Total/NA	Water	SM 2540D	

Prep Batch: 114772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-32698-1	WT-12607-121813-EE-001	Total/NA	Water	1664A	
LCS 240-114772/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 240-114772/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 114795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-32698-1	WT-12607-121813-EE-001	Total/NA	Water	1664A	114772
LCS 240-114772/2-A	Lab Control Sample	Total/NA	Water	1664A	114772
MB 240-114772/1-A	Method Blank	Total/NA	Water	1664A	114772

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607, T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-32698-1

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 240-114529/19-A

Matrix: Water

Analysis Batch: 114847

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 114529

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	ug/L		12/20/13 07:47	12/23/13 19:09	1
Aroclor-1221	0.10	U	0.10	ug/L		12/20/13 07:47	12/23/13 19:09	1
Aroclor-1232	0.10	U	0.10	ug/L		12/20/13 07:47	12/23/13 19:09	1
Aroclor-1242	0.10	U	0.10	ug/L		12/20/13 07:47	12/23/13 19:09	1
Aroclor-1248	0.10	U	0.10	ug/L		12/20/13 07:47	12/23/13 19:09	1
Aroclor-1254	0.10	U	0.10	ug/L		12/20/13 07:47	12/23/13 19:09	1
Aroclor-1260	0.10	U	0.10	ug/L		12/20/13 07:47	12/23/13 19:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	104		10 - 114	12/20/13 07:47	12/23/13 19:09	1
Tetrachloro-m-xylene	70		15 - 131	12/20/13 07:47	12/23/13 19:09	1

Lab Sample ID: LCS 240-114529/20-A

Matrix: Water

Analysis Batch: 114847

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114529

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	2.50	2.38		ug/L		95	50 - 114
Aroclor-1260	2.50	2.38		ug/L		95	8 - 127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	109		10 - 114
Tetrachloro-m-xylene	67		15 - 131

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 240-114551/1-A

Matrix: Water

Analysis Batch: 114822

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 114551

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.050	U	0.050	mg/L		12/20/13 08:43	12/23/13 20:15	1
Nickel	0.010	U	0.010	mg/L		12/20/13 08:43	12/23/13 20:15	1
Lead	0.050	U	0.050	mg/L		12/20/13 08:43	12/23/13 20:15	1
Zinc	0.020	U	0.020	mg/L		12/20/13 08:43	12/23/13 20:15	1

Lab Sample ID: LCS 240-114551/2-A

Matrix: Water

Analysis Batch: 114822

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 114551

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	0.200	0.196		mg/L		98	85 - 115
Nickel	0.500	0.494		mg/L		99	85 - 115
Lead	0.500	0.493		mg/L		99	85 - 115
Zinc	0.500	0.500		mg/L		100	85 - 115

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607, T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-32698-1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 240-32698-1 MS

Matrix: Water

Analysis Batch: 114822

Client Sample ID: WT-12607-121813-EE-001

Prep Type: Total Recoverable

Prep Batch: 114551

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	0.70		0.200	0.893		mg/L		98	75 - 125
Nickel	0.093		0.500	0.614		mg/L		104	75 - 125
Lead	0.050	U	0.500	0.532		mg/L		106	75 - 125
Zinc	0.020	U	0.500	0.511		mg/L		102	75 - 125

Lab Sample ID: 240-32698-1 MSD

Matrix: Water

Analysis Batch: 114822

Client Sample ID: WT-12607-121813-EE-001

Prep Type: Total Recoverable

Prep Batch: 114551

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium	0.70		0.200	0.865		mg/L		84	75 - 125	3	20
Nickel	0.093		0.500	0.613		mg/L		104	75 - 125	0	20
Lead	0.050	U	0.500	0.533		mg/L		106	75 - 125	0	20
Zinc	0.020	U	0.500	0.508		mg/L		102	75 - 125	1	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 240-114553/1-A

Matrix: Water

Analysis Batch: 114993

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 114553

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		12/20/13 12:45	12/24/13 15:14	1

Lab Sample ID: LCS 240-114553/2-A

Matrix: Water

Analysis Batch: 114993

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114553

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00500	0.00496		mg/L		99	85 - 115

Lab Sample ID: 240-32698-1 MS

Matrix: Water

Analysis Batch: 114993

Client Sample ID: WT-12607-121813-EE-001

Prep Type: Total/NA

Prep Batch: 114553

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00020	U	0.00100	0.00104		mg/L		104	70 - 130

Lab Sample ID: 240-32698-1 MSD

Matrix: Water

Analysis Batch: 114993

Client Sample ID: WT-12607-121813-EE-001

Prep Type: Total/NA

Prep Batch: 114553

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.00020	U	0.00100	0.00104		mg/L		104	70 - 130	1	20

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607, T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-32698-1

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 240-114772/1-A

Matrix: Water

Analysis Batch: 114795

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 114772

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	5.0	U	5.0	mg/L		12/23/13 09:06	12/23/13 09:06	1

Lab Sample ID: LCS 240-114772/2-A

Matrix: Water

Analysis Batch: 114795

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114772

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM	40.0	36.1		mg/L		90	78 - 114

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

Lab Sample ID: MB 240-114555/1

Matrix: Water

Analysis Batch: 114555

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	4.0	U	4.0	mg/L			12/20/13 08:53	1

Lab Sample ID: LCS 240-114555/2

Matrix: Water

Analysis Batch: 114555

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	40.7	34.0		mg/L		84	73 - 113

Method: SM 3500 CR D - Chromium, Hexavalent

Lab Sample ID: MB 240-114375/3

Matrix: Water

Analysis Batch: 114375

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0050	U ^	0.0050	mg/L			12/19/13 09:27	1

Lab Sample ID: LCS 240-114375/4

Matrix: Water

Analysis Batch: 114375

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.250	0.226		mg/L		90	80 - 118

TestAmerica Canton

Surrogate Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607, T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-32698-1

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB2 (10-114)	TCX2 (15-131)
240-32698-1	WT-12607-121813-EE-001	70	73
LCS 240-114529/20-A	Lab Control Sample	109	67
MB 240-114529/19-A	Method Blank	104	70

Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607, T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-32698-1

Client Sample ID: WT-12607-121813-EE-001

Lab Sample ID: 240-32698-1

Date Collected: 12/18/13 16:00

Matrix: Water

Date Received: 12/19/13 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			114529	12/20/13 07:47	AKC	TAL CAN
Total/NA	Analysis	608		1	114847	12/23/13 20:05	LSH	TAL CAN
Total Recoverable	Prep	200.7			114551	12/20/13 08:43	LPM	TAL CAN
Total Recoverable	Analysis	200.7 Rev 4.4		1	114822	12/23/13 20:22	RKT	TAL CAN
Total/NA	Prep	245.1			114553	12/20/13 12:45	LPM	TAL CAN
Total/NA	Analysis	245.1		1	114993	12/24/13 15:17	AMM2	TAL CAN
Total/NA	Analysis	SM 3500 CR D		1	114375	12/19/13 11:46	LCN	TAL CAN
Total/NA	Analysis	SM 2540D		1	114555	12/20/13 08:53	LCN	TAL CAN
Total/NA	Prep	1664A			114772	12/23/13 09:06	WAL	TAL CAN
Total/NA	Analysis	1664A		1	114795	12/23/13 09:06	WAL	TAL CAN

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Certification Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607, T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-32698-1

Laboratory: TestAmerica Canton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAP	9	01144CA	06-30-14
Connecticut	State Program	1	PH-0590	12-31-13 *
Florida	NELAP	4	E87225	06-30-14
Georgia	State Program	4	N/A	06-30-14
Illinois	NELAP	5	200004	07-31-14 *
Kansas	NELAP	7	E-10336	01-31-14 *
Kentucky (UST)	State Program	4	58	06-30-14
L-A-B	DoD ELAP		L2315	07-18-16
Nevada	State Program	9	OH-000482008A	07-31-14
New Jersey	NELAP	2	OH001	06-30-14
New York	NELAP	2	10975	04-01-14
Ohio VAP	State Program	5	CL0024	10-31-15
Pennsylvania	NELAP	3	68-00340	08-31-14 *
Texas	NELAP	6		08-31-14 *
USDA	Federal		P330-13-00319	11-26-16
Virginia	NELAP	3	460175	09-14-14
Washington	State Program	10	C971	01-12-14 *
West Virginia DEP	State Program	3	210	01-31-14 *
Wisconsin	State Program	5	999518190	08-31-14

* Expired certification is currently pending renewal and is considered valid.

TestAmerica Canton

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

CHAIN OF CUSTODY AND RECEIVING DOCUMENTS



240-32698 Chain of Custody



COC NO: PL-11964

PAGE 1 OF 1

(See Reverse Side for Instructions)

Project No/Phase/Task Code: 12607-TOIY13-003		Laboratory Name: Test America		Lab Location: N. Canton, OH		SSOW ID: 12607-TOIY13-003	
Project Name: RACER Livonia GWTP		Lab Contact: Denise Heckler		Lab Quote No:		Cooler No:	
Project Location: Livonia, MI		CONTAINER QUANTITY & PRESERVATION		ANALYSIS REQUESTED (See Back of COC for Definitions)		Carrier:	
Chemistry Contact: Rave Fleisher, CRA		SAMPLE TYPE		Total Containers/Sample		Airbill No:	
Sampler(s): Erik Engen, CRA		Matrix Code		Other:		Date Shipped:	
SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)		DATE (mm/dd/yy)		TIME (hh:mm)		COMMENTS/SPECIAL INSTRUCTIONS:	
WT-12607-121813-EE-001		12/18/13		1600			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT – ALL FIELDS MUST BE COMPLETED ACCURATELY

Nutrition.

WHITE - Fully Evaporated Condensed Milk

VEI | NW — Receiving | Shortstop, Center

PINK — dinner

REAL HENBORN – Sampling (Cont.)

Figure 1: A 3D visualization of the data space, showing the distribution of data points across three dimensions. The axes are labeled 'x', 'y', and 'z'. The data points are colored according to their class, with green representing one class and blue representing another. The plot shows a clear separation between the two classes, with the green points clustered in the upper right and the blue points clustered in the lower left.

TestAmerica Canton Sample Receipt Form/Narrative

Login #: 32698

Canton Facility

Client CRA

Site Name

Cooler unpacked by:

Cooler Received on 12-19-13

Opened on 12-19-13

Paul D. Allen

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other

TestAmerica Cooler # Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A (CF +0 °C) Observed Cooler Temp. 4.4 °C Corrected Cooler Temp. 4.4 °C

IR GUN# 4 (CF -1 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C

IR GUN# 5 (CF +1 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C

IR GUN# 8 (CF +1 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C

☐ See Multiple Cooler Form

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity

-Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA

-Were custody seals on the bottle(s)? Yes No

3. Shippers' packing slip attached to the cooler(s)?

4. Did custody papers accompany the sample(s)?

5. Were the custody papers relinquished & signed in the appropriate place?

6. Did all bottles arrive in good condition (Unbroken)?

7. Could all bottle labels be reconciled with the COC?

8. Were correct bottle(s) used for the test(s) indicated?

9. Sufficient quantity received to perform indicated analyses?

10. Were sample(s) at the correct pH upon receipt?

11. Were VOAs on the COC?

12. Were air bubbles >6 mm in any VOA vials?

13. Was a trip blank present in the cooler(s)?

Contacted PM Date by via Verbal Voice Mail Other

Concerning

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

All containers received equal ID# 12607-7014-063, COC states WT-12607-121813-EE-001, with log per COC

15. SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.

Sample(s) were received in a broken container.

Sample(s) were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory.

Time preserved: Preservative(s) added/Lot number(s):

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u> pH	<u>Preservative</u> Added (mls)	<u>Lot #</u>
WT-12607-121813-EE-001	240-32698-B-1	Plastic 500ml - with Nitric Acid	<2	_____	_____
WT-12607-121813-EE-001	240-32698-E-1	Amber Glass 1 liter - Sulfuric Acid	<2	_____	_____
WT-12607-121813-EE-001	240-32698-F-1	Amber Glass 1 liter - Sulfuric Acid	<2	_____	_____

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Canton

4101 Shuffel Street NW

North Canton, OH 44720

Tel: (330)497-9396

TestAmerica Job ID: 240-33710-1

Client Project/Site: 12607-T01Y14-012, RACER Eckles Rd

For:

Conestoga-Rovers & Associates, Inc.

14496 Sheldon Road, Suite 200

Plymouth, Michigan 48170

Attn: Rawa Fleisher



Authorized for release by:

2/7/2014 4:25:38 PM

Denise Heckler, Project Manager II

(330)966-9477

denise.heckler@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-33710-1

Job ID: 240-33710-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Conestoga-Rovers & Associates, Inc.

Project: 12607-T01Y14-012, RACER Eckles Rd

Report Number: 240-33710-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 01/30/2014; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 4.4 C.

POLYCHLORINATED BIPHENYLS (PCBS)

Sample WT-12607-012914-EE-001 (240-33710-1) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA Method 608. The samples were prepared on 01/31/2014 and analyzed on 02/02/2014.

No difficulties were encountered during the PCBs analysis.

All quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICP)

Sample WT-12607-012914-EE-001 (240-33710-1) was analyzed for total recoverable metals (ICP) in accordance with EPA Method 200.7. The samples were prepared on 02/03/2014 and analyzed on 02/04/2014.

Requested reporting limits (RL) that fall below the laboratory's verified standard quantitation limit have less certainty (i.e., are estimated) and must be used at the client's discretion. The continuing calibration blanks and method blanks may not support the lower RL.

No difficulties were encountered during the metals analysis.

Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-33710-1

Job ID: 240-33710-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

All quality control parameters were within the acceptance limits.

MERCURY

Sample WT-12607-012914-EE-001 (240-33710-1) was analyzed for mercury in accordance with EPA Method 245.1. The samples were prepared on 02/03/2014 and analyzed on 02/05/2014.

No difficulties were encountered during the mercury analysis.

All quality control parameters were within the acceptance limits.

N-HEXANE EXTRACTABLE MATERIAL

Sample WT-12607-012914-EE-001 (240-33710-1) was analyzed for n-hexane extractable material in accordance with EPA Method 1664A. The samples were prepared and analyzed on 02/06/2014.

No difficulties were encountered during the HEM analysis.

All other quality control parameters were within the acceptance limits.

TOTAL SUSPENDED SOLIDS

Sample WT-12607-012914-EE-001 (240-33710-1) was analyzed for total suspended solids in accordance with SM 2540D. The samples were analyzed on 02/03/2014.

No difficulties were encountered during the TSS analysis.

All quality control parameters were within the acceptance limits.

HEXAVALENT CHROMIUM

Sample WT-12607-012914-EE-001 (240-33710-1) was analyzed for hexavalent chromium in accordance with SM 3500 CR D. The samples were analyzed on 01/30/2014.

Cr (VI) failed the recovery criteria low for the MS/MSD of sample WT-12607-012914-EE-001 (240-33710-1) in batch 240-118136.

No other difficulties were encountered during the hexavalent chromium analysis.

All other quality control parameters were within the acceptance limits.

Definitions/Glossary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-33710-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
F1	MS and/or MSD Recovery exceeds the control limits
F2	MS/MSD RPD exceeds control limits

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
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Sample Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-33710-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-33710-1	WT-12607-012914-EE-001	Water	01/29/14 12:00	01/30/14 09:20

Detection Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-33710-1

Client Sample ID: WT-12607-012914-EE-001

Lab Sample ID: 240-33710-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Nickel	0.070		0.010	mg/L	1		200.7 Rev 4.4	Total
Total Suspended Solids	4.0		4.0	mg/L	1		SM 2540D	Recoverable Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

Method Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-33710-1

Method	Method Description	Protocol	Laboratory
608	Polychlorinated Biphenyls (PCBs) (GC)	40CFR136A	TAL CAN
200.7 Rev 4.4	Metals (ICP)	EPA	TAL CAN
245.1	Mercury (CVAA)	EPA	TAL CAN
1664A	HEM and SGT-HEM	1664A	TAL CAN
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL CAN
SM 3500 CR D	Chromium, Hexavalent	SM	TAL CAN

Protocol References:

1664A = EPA-821-98-002

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

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-33710-1

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Client Sample ID: WT-12607-012914-EE-001

Date Collected: 01/29/14 12:00

Date Received: 01/30/14 09:20

Lab Sample ID: 240-33710-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	ug/L		01/31/14 09:09	02/02/14 20:27	1
Aroclor-1221	0.095	U	0.095	ug/L		01/31/14 09:09	02/02/14 20:27	1
Aroclor-1232	0.095	U	0.095	ug/L		01/31/14 09:09	02/02/14 20:27	1
Aroclor-1242	0.095	U	0.095	ug/L		01/31/14 09:09	02/02/14 20:27	1
Aroclor-1248	0.095	U	0.095	ug/L		01/31/14 09:09	02/02/14 20:27	1
Aroclor-1254	0.095	U	0.095	ug/L		01/31/14 09:09	02/02/14 20:27	1
Aroclor-1260	0.095	U	0.095	ug/L		01/31/14 09:09	02/02/14 20:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	64		10 - 114			01/31/14 09:09	02/02/14 20:27	1
Tetrachloro-m-xylene	72		15 - 131			01/31/14 09:09	02/02/14 20:27	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-33710-1

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Client Sample ID: WT-12607-012914-EE-001

Date Collected: 01/29/14 12:00

Date Received: 01/30/14 09:20

Lab Sample ID: 240-33710-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.050	U	0.050	mg/L		02/03/14 08:36	02/04/14 09:43	1
Nickel	0.070		0.010	mg/L		02/03/14 08:36	02/04/14 09:43	1
Lead	0.050	U	0.050	mg/L		02/03/14 08:36	02/04/14 09:43	1
Zinc	0.020	U	0.020	mg/L		02/03/14 08:36	02/04/14 09:43	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-33710-1

Method: 245.1 - Mercury (CVAA)

Client Sample ID: WT-12607-012914-EE-001

Date Collected: 01/29/14 12:00

Date Received: 01/30/14 09:20

Lab Sample ID: 240-33710-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		02/03/14 14:00	02/05/14 13:27	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-33710-1

General Chemistry

Client Sample ID: WT-12607-012914-EE-001

Date Collected: 01/29/14 12:00

Date Received: 01/30/14 09:20

Lab Sample ID: 240-33710-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	4.7	U	4.7	mg/L		02/06/14 09:06	02/06/14 09:06	1
Total Suspended Solids	4.0		4.0	mg/L			02/03/14 09:12	1
Cr (VI)	0.0050	U	0.0050	mg/L			01/30/14 11:07	1

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-33710-1

GC Semi VOA

Prep Batch: 118225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-33710-1	WT-12607-012914-EE-001	Total/NA	Water	3510C	
LCS 240-118225/4-A	Lab Control Sample	Total/NA	Water	3510C	
MB 240-118225/3-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 118323

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-33710-1	WT-12607-012914-EE-001	Total/NA	Water	608	118225
LCS 240-118225/4-A	Lab Control Sample	Total/NA	Water	608	118225
MB 240-118225/3-A	Method Blank	Total/NA	Water	608	118225

Metals

Prep Batch: 118350

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-33710-1	WT-12607-012914-EE-001	Total Recoverable	Water	200.7	
LCS 240-118350/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
MB 240-118350/1-A	Method Blank	Total Recoverable	Water	200.7	

Prep Batch: 118352

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-33710-1	WT-12607-012914-EE-001	Total/NA	Water	245.1	
LCS 240-118352/2-A	Lab Control Sample	Total/NA	Water	245.1	
MB 240-118352/1-A	Method Blank	Total/NA	Water	245.1	

Analysis Batch: 118476

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-33710-1	WT-12607-012914-EE-001	Total Recoverable	Water	200.7 Rev 4.4	118350
LCS 240-118350/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	118350
MB 240-118350/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	118350

Analysis Batch: 118675

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-33710-1	WT-12607-012914-EE-001	Total/NA	Water	245.1	118352
LCS 240-118352/2-A	Lab Control Sample	Total/NA	Water	245.1	118352
MB 240-118352/1-A	Method Blank	Total/NA	Water	245.1	118352

General Chemistry

Analysis Batch: 118136

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-33710-1	WT-12607-012914-EE-001	Total/NA	Water	SM 3500 CR D	
240-33710-1 MS	WT-12607-012914-EE-001	Total/NA	Water	SM 3500 CR D	
240-33710-1 MSD	WT-12607-012914-EE-001	Total/NA	Water	SM 3500 CR D	
LCS 240-118136/4	Lab Control Sample	Total/NA	Water	SM 3500 CR D	
MB 240-118136/3	Method Blank	Total/NA	Water	SM 3500 CR D	

Analysis Batch: 118364

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-33710-1	WT-12607-012914-EE-001	Total/NA	Water	SM 2540D	
LCS 240-118364/2	Lab Control Sample	Total/NA	Water	SM 2540D	

TestAmerica Canton

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-33710-1

General Chemistry (Continued)

Analysis Batch: 118364 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-118364/1	Method Blank	Total/NA	Water	SM 2540D	

Prep Batch: 118757

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-33710-1	WT-12607-012914-EE-001	Total/NA	Water	1664A	
LCS 240-118757/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 240-118757/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 118778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-33710-1	WT-12607-012914-EE-001	Total/NA	Water	1664A	118757
LCS 240-118757/2-A	Lab Control Sample	Total/NA	Water	1664A	118757
MB 240-118757/1-A	Method Blank	Total/NA	Water	1664A	118757

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-33710-1

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 240-118225/3-A

Matrix: Water

Analysis Batch: 118323

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 118225

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	ug/L		01/31/14 09:09	02/02/14 20:41	1
Aroclor-1221	0.10	U	0.10	ug/L		01/31/14 09:09	02/02/14 20:41	1
Aroclor-1232	0.10	U	0.10	ug/L		01/31/14 09:09	02/02/14 20:41	1
Aroclor-1242	0.10	U	0.10	ug/L		01/31/14 09:09	02/02/14 20:41	1
Aroclor-1248	0.10	U	0.10	ug/L		01/31/14 09:09	02/02/14 20:41	1
Aroclor-1254	0.10	U	0.10	ug/L		01/31/14 09:09	02/02/14 20:41	1
Aroclor-1260	0.10	U	0.10	ug/L		01/31/14 09:09	02/02/14 20:41	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	56		10 - 114	01/31/14 09:09	02/02/14 20:41	1
Tetrachloro-m-xylene	50		15 - 131	01/31/14 09:09	02/02/14 20:41	1

Lab Sample ID: LCS 240-118225/4-A

Matrix: Water

Analysis Batch: 118323

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 118225

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	2.50	2.33		ug/L		93	50 - 114
Aroclor-1260	2.50	2.18		ug/L		87	8 - 127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	79		10 - 114
Tetrachloro-m-xylene	94		15 - 131

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 240-118350/1-A

Matrix: Water

Analysis Batch: 118476

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 118350

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.050	U	0.050	mg/L		02/03/14 08:36	02/04/14 07:58	1
Nickel	0.010	U	0.010	mg/L		02/03/14 08:36	02/04/14 07:58	1
Lead	0.050	U	0.050	mg/L		02/03/14 08:36	02/04/14 07:58	1
Zinc	0.020	U	0.020	mg/L		02/03/14 08:36	02/04/14 07:58	1

Lab Sample ID: LCS 240-118350/2-A

Matrix: Water

Analysis Batch: 118476

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 118350

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	0.200	0.188		mg/L		94	85 - 115
Nickel	0.500	0.471		mg/L		94	85 - 115
Lead	0.500	0.462		mg/L		92	85 - 115
Zinc	0.500	0.481		mg/L		96	85 - 115

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-33710-1

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 240-118352/1-A
Matrix: Water
Analysis Batch: 118675

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 118352

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		02/03/14 14:00	02/05/14 13:02	1

Lab Sample ID: LCS 240-118352/2-A
Matrix: Water
Analysis Batch: 118675

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 118352

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
Mercury	0.00500	0.00518		mg/L		104	85 - 115	

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 240-118757/1-A
Matrix: Water
Analysis Batch: 118778

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 118757

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	5.0	U	5.0	mg/L		02/06/14 09:06	02/06/14 09:06	1

Lab Sample ID: LCS 240-118757/2-A
Matrix: Water
Analysis Batch: 118778

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 118757

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
HEM	40.0	32.2		mg/L		81	78 - 114	

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

Lab Sample ID: MB 240-118364/1
Matrix: Water
Analysis Batch: 118364

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	4.0	U	4.0	mg/L			02/03/14 09:12	1

Lab Sample ID: LCS 240-118364/2
Matrix: Water
Analysis Batch: 118364

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	46.3	47.0		mg/L		102	73 - 113	

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-33710-1

Method: SM 3500 CR D - Chromium, Hexavalent

Lab Sample ID: MB 240-118136/3

Matrix: Water

Analysis Batch: 118136

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0050	U	0.0050	mg/L			01/30/14 11:05	1

Lab Sample ID: LCS 240-118136/4

Matrix: Water

Analysis Batch: 118136

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.250	0.245		mg/L		98	80 - 118

Lab Sample ID: 240-33710-1 MS

Matrix: Water

Analysis Batch: 118136

Client Sample ID: WT-12607-012914-EE-001

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.0050	U	0.250	0.0502	F1	mg/L		20	41 - 136

Lab Sample ID: 240-33710-1 MSD

Matrix: Water

Analysis Batch: 118136

Client Sample ID: WT-12607-012914-EE-001

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cr (VI)	0.0050	U	0.250	0.0209	F1 F2	mg/L		8	41 - 136	82	20

TestAmerica Canton

Surrogate Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-33710-1

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB2 (10-114)	TCX2 (15-131)
240-33710-1	WT-12607-012914-EE-001	64	72
LCS 240-118225/4-A	Lab Control Sample	79	94
MB 240-118225/3-A	Method Blank	56	50

Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-33710-1

Client Sample ID: WT-12607-012914-EE-001

Lab Sample ID: 240-33710-1

Date Collected: 01/29/14 12:00

Matrix: Water

Date Received: 01/30/14 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			118225	01/31/14 09:09	KEC	TAL CAN
Total/NA	Analysis	608		1	118323	02/02/14 20:27	RSK	TAL CAN
Total Recoverable	Prep	200.7			118350	02/03/14 08:36	ADS	TAL CAN
Total Recoverable	Analysis	200.7 Rev 4.4		1	118476	02/04/14 09:43	KLC	TAL CAN
Total/NA	Prep	245.1			118352	02/03/14 14:00	ADS	TAL CAN
Total/NA	Analysis	245.1		1	118675	02/05/14 13:27	AMM2	TAL CAN
Total/NA	Analysis	SM 3500 CR D		1	118136	01/30/14 11:07	BLW	TAL CAN
Total/NA	Analysis	SM 2540D		1	118364	02/03/14 09:12	LCN	TAL CAN
Total/NA	Prep	1664A			118757	02/06/14 09:06	WAL	TAL CAN
Total/NA	Analysis	1664A		1	118778	02/06/14 09:06	WAL	TAL CAN

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Certification Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-33710-1

Laboratory: TestAmerica Canton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAP	9	01144CA	06-30-14
Connecticut	State Program	1	PH-0590	12-31-14
Florida	NELAP	4	E87225	06-30-14
Georgia	State Program	4	N/A	06-30-14
Illinois	NELAP	5	200004	07-31-14 *
Kansas	NELAP	7	E-10336	04-01-14 *
Kentucky (UST)	State Program	4	58	06-30-14
L-A-B	DoD ELAP		L2315	07-18-16
Minnesota	NELAP	5	039-999-348	12-31-14
Nevada	State Program	9	OH-000482008A	07-31-14
New Jersey	NELAP	2	OH001	06-30-14
New York	NELAP	2	10975	04-01-14
Ohio VAP	State Program	5	CL0024	10-31-15
Pennsylvania	NELAP	3	68-00340	08-31-14 *
Texas	NELAP	6		08-31-14 *
USDA	Federal		P330-13-00319	11-26-16
Virginia	NELAP	3	460175	09-14-14
Washington	State Program	10	C971	01-12-14 *
West Virginia DEP	State Program	3	210	02-28-14 *
Wisconsin	State Program	5	999518190	08-31-14

* Expired certification is currently pending renewal and is considered valid.

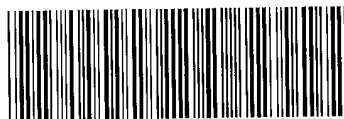
TestAmerica Canton

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

CHAIN OF CUSTODY AND RECEIVING DOCUMENTS



240-33710 Chain of Custody



CHAIN OF CUSTODY RECORD

14496 Sheldon Road, Suite #200, Plymouth, Michigan 48170

Phone: (734) 453-5123

Fax: (734) 453-5201

COC NO: **PL-11795**
PAGE **1** OF **1**

(See Reverse Side for Instructions)

Project No/Phase/Task Code: 12607-TOY14-003		Laboratory Name: Test America		Lab Location: N. Canton, OH		SSOW ID: 12607-TOY14-012	
Project Name: RACER Livonia GWTP		Lab Contact: Denise Heckler		Lab Quote No:		Cooler No:	
Project Location: Livonia, MI		CONTAINER QUANTITY & PRESERVATION		ANALYSIS REQUESTED (See Back of COC for Definitions)		Carrier:	
Chemistry Contact: Rawa Fleisher, CRA		SAMPLE TYPE		Total Containers/Sample		Airbill No:	
Sampler(s): Erik Engnell, CRA		Matrix Code		Other:		Date Shipped:	
SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)		DATE (mm/dd/yyyy)		TIME (hh:mm)		COMMENTS/ SPECIAL INSTRUCTIONS:	
WT- 12607-012914-EE-001		1/29/14		1200			
1		2		3		4	
2		3		4		5	
3		4		5		6	
4		5		6		7	
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82		83		84		85	
83		84		85			

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT -- ALL FIELDS MUST BE COMPLETED ACCURATELY

Distribution:

WHITE -- Fully Executed Copy (CRA)

YELLOW – Receiving Laboratory Copy

PINK – Shipper

GOLDENROD – Samolina Crew

CRA Form: COC-10A (20110804)

TestAmerica Canton Sample Receipt Form/Narrative

Login #: 33710

Canton Facility

Client CRA Site Name Cooler unpacked by:

Cooler Received on 1/30/14 Opened on 1/30/14

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other

TestAmerica Cooler # 210-003 Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A (CF +0 °C) Observed Cooler Temp. 4.4 °C Corrected Cooler Temp. 4.4 °C

IR GUN# 4 (CF -1 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C

IR GUN# 5 (CF +1 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C

IR GUN# 8 (CF +1 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C

☐ See Multiple Cooler Form

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity

-Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA

-Were custody seals on the bottle(s)? Yes No

3. Shippers' packing slip attached to the cooler(s)?

4. Did custody papers accompany the sample(s)? Yes No

5. Were the custody papers relinquished & signed in the appropriate place? Yes No

6. Did all bottles arrive in good condition (Unbroken)?

7. Could all bottle labels be reconciled with the COC? Yes No

8. Were correct bottle(s) used for the test(s) indicated? Yes No

9. Sufficient quantity received to perform indicated analyses? Yes No

10. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC391902

11. Were VOAs on the COC? Yes No

12. Were air bubbles >6 mm in any VOA vials? Yes No NA

13. Was a trip blank present in the cooler(s)? Yes No

Contacted PM Date by via Verbal Voice Mail Other

Concerning

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

15. SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.

Sample(s) were received in a broken container.

Sample(s) were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory.

Time preserved: Preservative(s) added/Lot number(s):

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u> <u>pH</u>	<u>Preservative</u> <u>Added (mls)</u>	<u>Lot #</u>
WT-12607-012914-EE-001	240-33710-B-1	Plastic 500ml - with Nitric Acid	<2	_____	_____
WT-12607-012914-EE-001	240-33710-E-1	Amber Glass 1 liter - Sulfuric Acid	<2	_____	_____
WT-12607-012914-EE-001	240-33710-F-1	Amber Glass 1 liter - Sulfuric Acid	<2	_____	_____

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Canton

4101 Shuffel Street NW

North Canton, OH 44720

Tel: (330)497-9396

TestAmerica Job ID: 240-34123-1

Client Project/Site: 12607-T01Y14-012, RACER Eckles Rd

For:

Conestoga-Rovers & Associates, Inc.

14496 Sheldon Road, Suite 200

Plymouth, Michigan 48170

Attn: Rawa Fleisher



Authorized for release by:

2/25/2014 3:11:50 PM

Nathan Pietras, Project Manager II

(330)966-8296

nathan.pietras@testamericainc.com

Designee for

Denise Heckler, Project Manager II

(330)966-9477

denise.heckler@testamericainc.com

LINKS

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results through

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Visit us at:

www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-34123-1

Job ID: 240-34123-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Conestoga-Rovers & Associates, Inc.

Project: 12607-T01Y14-012, RACER Eckles Rd

Report Number: 240-34123-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The sample was received on 2/13/2014 9:35 AM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.6° C.

POLYCHLORINATED BIPHENYLS (PCBS)

Sample WT-12607-021214-EE-001 (240-34123-1) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA Method 608. The samples were prepared on 02/14/2014 and analyzed on 02/17/2014.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required. All of the samples in this data set analyzed for PCBs were subjected to the sulfuric acid cleanup procedure before instrumental analysis, per EPA Method 3665A.

No other difficulties were encountered during the PCBs analysis.

All quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICP)

Sample WT-12607-021214-EE-001 (240-34123-1) was analyzed for total recoverable metals (ICP) in accordance with EPA Method 200.7.

Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-34123-1

Job ID: 240-34123-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

The samples were prepared on 02/14/2014 and analyzed on 02/17/2014.

No difficulties were encountered during the metals analysis.

All quality control parameters were within the acceptance limits.

MERCURY

Sample WT-12607-021214-EE-001 (240-34123-1) was analyzed for mercury in accordance with EPA Method 245.1. The samples were prepared on 02/17/2014 and analyzed on 02/18/2014.

No difficulties were encountered during the mercury analysis.

All quality control parameters were within the acceptance limits.

N-HEXANE EXTRACTABLE MATERIAL

Sample WT-12607-021214-EE-001 (240-34123-1) was analyzed for n-hexane extractable material in accordance with EPA Method 1664A. The samples were prepared and analyzed on 02/21/2014.

No other difficulties were encountered during the HEM analysis.

All other quality control parameters were within the acceptance limits.

TOTAL SUSPENDED SOLIDS

Sample WT-12607-021214-EE-001 (240-34123-1) was analyzed for total suspended solids in accordance with SM 2540D. The samples were analyzed on 02/14/2014.

No difficulties were encountered during the TSS analysis.

All quality control parameters were within the acceptance limits.

HEXAVALENT CHROMIUM

Sample WT-12607-021214-EE-001 (240-34123-1) was analyzed for hexavalent chromium in accordance with SM 3500 CR D. The samples were analyzed on 02/13/2014.

Cr (VI) failed the recovery criteria low for the MS/MSD of sample WT-12607-021214-EE-001MS/MSD (240-34123-1) in batch 240-119519.

No other difficulties were encountered during the hexavalent chromium analysis.

All other quality control parameters were within the acceptance limits.

Definitions/Glossary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-34123-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
F1	MS and/or MSD Recovery exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Sample Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-34123-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-34123-1	WT-12607-021214-EE-001	Water	02/12/14 12:00	02/13/14 09:35

Detection Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-34123-1

Client Sample ID: WT-12607-021214-EE-001

Lab Sample ID: 240-34123-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.081		0.050	mg/L	1		200.7 Rev 4.4	Total
Nickel	0.068		0.010	mg/L	1		200.7 Rev 4.4	Recoverable
								Total
								Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

Method Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-34123-1

Method	Method Description	Protocol	Laboratory
608	Polychlorinated Biphenyls (PCBs) (GC)	40CFR136A	TAL CAN
200.7 Rev 4.4	Metals (ICP)	EPA	TAL CAN
245.1	Mercury (CVAA)	EPA	TAL CAN
1664A	HEM and SGT-HEM	1664A	TAL CAN
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL CAN
SM 3500 CR D	Chromium, Hexavalent	SM	TAL CAN

Protocol References:

1664A = EPA-821-98-002

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

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-34123-1

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Client Sample ID: WT-12607-021214-EE-001

Date Collected: 02/12/14 12:00

Date Received: 02/13/14 09:35

Lab Sample ID: 240-34123-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	ug/L		02/14/14 09:50	02/17/14 13:01	1
Aroclor-1221	0.095	U	0.095	ug/L		02/14/14 09:50	02/17/14 13:01	1
Aroclor-1232	0.095	U	0.095	ug/L		02/14/14 09:50	02/17/14 13:01	1
Aroclor-1242	0.095	U	0.095	ug/L		02/14/14 09:50	02/17/14 13:01	1
Aroclor-1248	0.095	U	0.095	ug/L		02/14/14 09:50	02/17/14 13:01	1
Aroclor-1254	0.095	U	0.095	ug/L		02/14/14 09:50	02/17/14 13:01	1
Aroclor-1260	0.095	U	0.095	ug/L		02/14/14 09:50	02/17/14 13:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	69		10 - 114			02/14/14 09:50	02/17/14 13:01	1
Tetrachloro-m-xylene	81		15 - 131			02/14/14 09:50	02/17/14 13:01	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-34123-1

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Client Sample ID: WT-12607-021214-EE-001

Date Collected: 02/12/14 12:00

Date Received: 02/13/14 09:35

Lab Sample ID: 240-34123-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.081		0.050	mg/L		02/14/14 07:53	02/17/14 14:37	1
Nickel	0.068		0.010	mg/L		02/14/14 07:53	02/17/14 14:37	1
Lead	0.050	U	0.050	mg/L		02/14/14 07:53	02/17/14 14:37	1
Zinc	0.020	U	0.020	mg/L		02/14/14 07:53	02/17/14 14:37	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-34123-1

Method: 245.1 - Mercury (CVAA)

Client Sample ID: WT-12607-021214-EE-001

Date Collected: 02/12/14 12:00

Date Received: 02/13/14 09:35

Lab Sample ID: 240-34123-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		02/17/14 12:00	02/18/14 11:16	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-34123-1

General Chemistry

Client Sample ID: WT-12607-021214-EE-001

Date Collected: 02/12/14 12:00

Date Received: 02/13/14 09:35

Lab Sample ID: 240-34123-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	4.7	U	4.7	mg/L		02/21/14 08:08	02/21/14 08:08	1
Total Suspended Solids	4.0	U	4.0	mg/L			02/14/14 09:48	1
Cr (VI)	0.0050	U	0.0050	mg/L			02/13/14 08:59	1

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-34123-1

GC Semi VOA

Prep Batch: 119639

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-34123-1	WT-12607-021214-EE-001	Total/NA	Water	3510C	
LCS 240-119639/5-A	Lab Control Sample	Total/NA	Water	3510C	
MB 240-119639/4-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 119844

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-34123-1	WT-12607-021214-EE-001	Total/NA	Water	608	119639
LCS 240-119639/5-A	Lab Control Sample	Total/NA	Water	608	119639
MB 240-119639/4-A	Method Blank	Total/NA	Water	608	119639

Metals

Prep Batch: 119612

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-34123-1	WT-12607-021214-EE-001	Total Recoverable	Water	200.7	
LCS 240-119612/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
MB 240-119612/1-A	Method Blank	Total Recoverable	Water	200.7	

Prep Batch: 119764

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-34123-1	WT-12607-021214-EE-001	Total/NA	Water	245.1	
LCS 240-119764/2-A	Lab Control Sample	Total/NA	Water	245.1	
MB 240-119764/1-A	Method Blank	Total/NA	Water	245.1	

Analysis Batch: 119800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-34123-1	WT-12607-021214-EE-001	Total Recoverable	Water	200.7 Rev 4.4	119612
LCS 240-119612/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	119612
MB 240-119612/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	119612

Analysis Batch: 120076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-34123-1	WT-12607-021214-EE-001	Total/NA	Water	245.1	119764
LCS 240-119764/2-A	Lab Control Sample	Total/NA	Water	245.1	119764
MB 240-119764/1-A	Method Blank	Total/NA	Water	245.1	119764

General Chemistry

Analysis Batch: 119519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-34123-1	WT-12607-021214-EE-001	Total/NA	Water	SM 3500 CR D	
240-34123-1 MS	WT-12607-021214-EE-001	Total/NA	Water	SM 3500 CR D	
240-34123-1 MSD	WT-12607-021214-EE-001	Total/NA	Water	SM 3500 CR D	
LCS 240-119519/4	Lab Control Sample	Total/NA	Water	SM 3500 CR D	
MB 240-119519/3	Method Blank	Total/NA	Water	SM 3500 CR D	

Analysis Batch: 119638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-34123-1	WT-12607-021214-EE-001	Total/NA	Water	SM 2540D	
LCS 240-119638/2	Lab Control Sample	Total/NA	Water	SM 2540D	

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QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-34123-1

General Chemistry (Continued)

Analysis Batch: 119638 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-119638/1	Method Blank	Total/NA	Water	SM 2540D	

Prep Batch: 120321

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-34123-1	WT-12607-021214-EE-001	Total/NA	Water	1664A	
LCS 240-120321/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 240-120321/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 120355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-34123-1	WT-12607-021214-EE-001	Total/NA	Water	1664A	120321
LCS 240-120321/2-A	Lab Control Sample	Total/NA	Water	1664A	120321
MB 240-120321/1-A	Method Blank	Total/NA	Water	1664A	120321

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-34123-1

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 240-119639/4-A

Matrix: Water

Analysis Batch: 119844

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 119639

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	ug/L		02/14/14 09:50	02/17/14 13:57	1
Aroclor-1221	0.10	U	0.10	ug/L		02/14/14 09:50	02/17/14 13:57	1
Aroclor-1232	0.10	U	0.10	ug/L		02/14/14 09:50	02/17/14 13:57	1
Aroclor-1242	0.10	U	0.10	ug/L		02/14/14 09:50	02/17/14 13:57	1
Aroclor-1248	0.10	U	0.10	ug/L		02/14/14 09:50	02/17/14 13:57	1
Aroclor-1254	0.10	U	0.10	ug/L		02/14/14 09:50	02/17/14 13:57	1
Aroclor-1260	0.10	U	0.10	ug/L		02/14/14 09:50	02/17/14 13:57	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	92		10 - 114	02/14/14 09:50	02/17/14 13:57	1
Tetrachloro-m-xylene	92		15 - 131	02/14/14 09:50	02/17/14 13:57	1

Lab Sample ID: LCS 240-119639/5-A

Matrix: Water

Analysis Batch: 119844

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 119639

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	2.50	2.53		ug/L		101	50 - 114
Aroclor-1260	2.50	2.40		ug/L		96	8 - 127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	103		10 - 114
Tetrachloro-m-xylene	97		15 - 131

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 240-119612/1-A

Matrix: Water

Analysis Batch: 119800

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 119612

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.050	U	0.050	mg/L		02/14/14 07:53	02/17/14 13:19	1
Nickel	0.010	U	0.010	mg/L		02/14/14 07:53	02/17/14 13:19	1
Lead	0.050	U	0.050	mg/L		02/14/14 07:53	02/17/14 13:19	1
Zinc	0.020	U	0.020	mg/L		02/14/14 07:53	02/17/14 13:19	1

Lab Sample ID: LCS 240-119612/2-A

Matrix: Water

Analysis Batch: 119800

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 119612

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	0.200	0.187		mg/L		94	85 - 115
Nickel	0.500	0.479		mg/L		96	85 - 115
Lead	0.500	0.469		mg/L		94	85 - 115
Zinc	0.500	0.481		mg/L		96	85 - 115

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QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-34123-1

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 240-119764/1-A
Matrix: Water
Analysis Batch: 120076

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 119764

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		02/17/14 12:00	02/18/14 10:52	1

Lab Sample ID: LCS 240-119764/2-A
Matrix: Water
Analysis Batch: 120076

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 119764

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00500	0.00493		mg/L		99	85 - 115

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 240-120321/1-A
Matrix: Water
Analysis Batch: 120355

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 120321

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	5.0	U	5.0	mg/L		02/21/14 08:08	02/21/14 08:08	1

Lab Sample ID: LCS 240-120321/2-A
Matrix: Water
Analysis Batch: 120355

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 120321

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM	40.0	37.8		mg/L		94	78 - 114

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

Lab Sample ID: MB 240-119638/1
Matrix: Water
Analysis Batch: 119638

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	4.0	U	4.0	mg/L			02/14/14 09:48	1

Lab Sample ID: LCS 240-119638/2
Matrix: Water
Analysis Batch: 119638

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	46.3	40.0		mg/L		86	73 - 113

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QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-34123-1

Method: SM 3500 CR D - Chromium, Hexavalent

Lab Sample ID: MB 240-119519/3

Matrix: Water

Analysis Batch: 119519

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0050	U	0.0050	mg/L			02/13/14 08:59	1

Lab Sample ID: LCS 240-119519/4

Matrix: Water

Analysis Batch: 119519

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.250	0.266		mg/L		107	80 - 118

Lab Sample ID: 240-34123-1 MS

Matrix: Water

Analysis Batch: 119519

Client Sample ID: WT-12607-021214-EE-001

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.0050	U	0.250	0.0432	F1	mg/L		17	41 - 136

Lab Sample ID: 240-34123-1 MSD

Matrix: Water

Analysis Batch: 119519

Client Sample ID: WT-12607-021214-EE-001

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cr (VI)	0.0050	U	0.250	0.0502	F1	mg/L		20	41 - 136	15	20

TestAmerica Canton

Surrogate Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-34123-1

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB2 (10-114)	TCX2 (15-131)
240-34123-1	WT-12607-021214-EE-001	69	81
LCS 240-119639/5-A	Lab Control Sample	103	97
MB 240-119639/4-A	Method Blank	92	92

Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-34123-1

Client Sample ID: WT-12607-021214-EE-001

Lab Sample ID: 240-34123-1

Date Collected: 02/12/14 12:00

Matrix: Water

Date Received: 02/13/14 09:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			119639	02/14/14 09:50	KEC	TAL CAN
Total/NA	Analysis	608		1	119844	02/17/14 13:01	LSH	TAL CAN
Total Recoverable	Prep	200.7			119612	02/14/14 07:53	LPM	TAL CAN
Total Recoverable	Analysis	200.7 Rev 4.4		1	119800	02/17/14 14:37	KLC	TAL CAN
Total/NA	Prep	245.1			119764	02/17/14 12:00	LPM	TAL CAN
Total/NA	Analysis	245.1		1	120076	02/18/14 11:16	AMM2	TAL CAN
Total/NA	Analysis	SM 3500 CR D		1	119519	02/13/14 08:59	NJE	TAL CAN
Total/NA	Analysis	SM 2540D		1	119638	02/14/14 09:48	LCN	TAL CAN
Total/NA	Prep	1664A			120321	02/21/14 08:08	WAL	TAL CAN
Total/NA	Analysis	1664A		1	120355	02/21/14 08:08	WAL	TAL CAN

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Certification Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-34123-1

Laboratory: TestAmerica Canton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAP	9	01144CA	06-30-14
Connecticut	State Program	1	PH-0590	12-31-14
Florida	NELAP	4	E87225	06-30-14
Georgia	State Program	4	N/A	06-30-14
Illinois	NELAP	5	200004	07-31-14
Kansas	NELAP	7	E-10336	04-01-14 *
Kentucky (UST)	State Program	4	58	06-30-14
L-A-B	DoD ELAP		L2315	07-18-16
Minnesota	NELAP	5	039-999-348	12-31-14
Nevada	State Program	9	OH-000482008A	07-31-14
New Jersey	NELAP	2	OH001	06-30-14
New York	NELAP	2	10975	04-01-14
Ohio VAP	State Program	5	CL0024	10-31-15
Pennsylvania	NELAP	3	68-00340	08-31-14
Texas	NELAP	6		08-31-14
USDA	Federal		P330-13-00319	11-26-16
Virginia	NELAP	3	460175	09-14-14
Washington	State Program	10	C971	01-12-15
West Virginia DEP	State Program	3	210	02-28-14 *
Wisconsin	State Program	5	999518190	08-31-14

* Expired certification is currently pending renewal and is considered valid.

TestAmerica Canton

TestAmerica

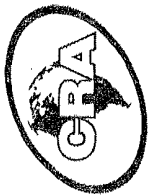
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

CHAIN OF CUSTODY AND RECEIVING DOCUMENTS



240-34123 Chain of Custody



**CONESTOGA-ROVERS
& ASSOCIATES**

CHAIN OF CUSTODY RECORD

14496 Sheldon Road, Suite #200, Plymouth, Michigan 48170

Phone: (734) 453-5123

Fax: (734) 453-5201

COC NO: **PL-13775**

PAGE **1** OF **1**

(See Reverse Side for Instructions)

Project No/Phase/Task Code: 12607-TU14-003		Laboratory Name: Test America		Lab Location: N. Canton, OH		SSOW ID: 12607-TU14-012	
Project Name: RACER Livonia GWTP		Lab Contact: Denise Heckler		Lab Quote No:		Cooler No:	
Project Location: Livonia, MI		SAMPLE TYPE		CONTAINER QUANTITY & PRESERVATION		ANALYSIS REQUESTED (See Back of COC for Definitions)	
Chemistry Contact: Rawc Fleisher, CRA		Grab (G) or Comp (C)		Unpreserved		MS/MSD Request	
Sampler(s): Erik Engnell, CRA		Matrix Code		Hydrochloric Acid (HCl)		Date Shipped:	
SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)		DATE (mm/dd/yyyy)		TIME (hh:mm)		COMMENTS/SPECIAL INSTRUCTIONS:	
WT-12607-021214-EE-001		2/12/14		1200			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
TAT Required in business days (use separate COCs for different TATs):		DATE		COMPANY		RECEIVED BY	
☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☒ 2 Week ☐ Other: STD		2/12/14		CRA		1. Erik Engnell	
All Samples in Cooler must be on COC		TIME		COMPANY		DATE	
1300		1. Erik Engnell		1. ATC		2-13-14	
2.						935	
3.							

TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login #: 34123

Client <u>CRA</u>		Site Name _____		Cooler unpacked by <u>[Signature]</u>	
Cooler Received on <u>2-13-14</u>		Opened on <u>2-13-14</u>			
FedEx: 1 st Grd <u>Exp</u> UPS FAS Stetson		Client Drop Off		TestAmerica Courier Other _____	
TestAmerica Cooler # _____		Foam Box <u>Client Cooler</u>		Box Other _____	
Packing material used: <u>Bubble Wrap</u> Foam Plastic Bag None Other _____					
COOLANT: <u>Wet Ice</u> Blue Ice Dry Ice Water None					
1. Cooler temperature upon receipt					
IR GUN# A (CF +0 °C)		Observed Cooler Temp. <u>1.6</u> °C		Corrected Cooler Temp. <u>1.6</u> °C	
IR GUN# 4 (CF -1 °C)		Observed Cooler Temp. _____ °C		Corrected Cooler Temp. _____ °C	
IR GUN# 5 (CF +1 °C)		Observed Cooler Temp. _____ °C		Corrected Cooler Temp. _____ °C	
IR GUN# 8 (CF +1 °C)		Observed Cooler Temp. _____ °C		Corrected Cooler Temp. _____ °C	
☐ See Multiple Cooler Form					
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity _____ Yes <u>No</u>					
-Were custody seals on the outside of the cooler(s) signed & dated? Yes No <u>NA</u>					
-Were custody seals on the bottle(s)? Yes No <u>No</u>					
3. Shippers' packing slip attached to the cooler(s)? Yes No <u>No</u>					
4. Did custody papers accompany the sample(s)? Yes No <u>No</u>					
5. Were the custody papers relinquished & signed in the appropriate place? Yes No <u>No</u>					
6. Did all bottles arrive in good condition (Unbroken)? Yes No <u>No</u>					
7. Could all bottle labels be reconciled with the COC? Yes No <u>No</u>					
8. Were correct bottle(s) used for the test(s) indicated? Yes No <u>No</u>					
9. Sufficient quantity received to perform indicated analyses? Yes No <u>No</u>					
10. Were sample(s) at the correct pH upon receipt? Yes No <u>NA</u> pH Strip Lot# <u>HC391902</u>					
11. Were VOAs on the COC? Yes No <u>No</u>					
12. Were air bubbles >6 mm in any VOA vials? Yes No <u>NA</u>					
13. Was a trip blank present in the cooler(s)? Yes No <u>No</u>					
Contacted PM <u>DDH</u> Date <u>2/13/14</u> by <u>AM</u> via Verbal Voice Mail Other _____					
Concerning <u>#14</u>					

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by: [Signature]

COC ID = WT-12607-021214-EE-001
Bottle Label = 12607-T01Y14-003 > Will log per COC

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u> pH	<u>Preservative</u> Added (mls)	<u>Lot #</u>
WT-12607-021214-EE-001	240-34123-B-1	Plastic 500ml - with Nitric Acid	<2	_____	_____
WT-12607-021214-EE-001	240-34123-C-1	Amber Glass 1 liter - Sulfuric Acid	<2	_____	_____
WT-12607-021214-EE-001	240-34123-D-1	Amber Glass 1 liter - Sulfuric Acid	<2	_____	_____