



**CONESTOGA-ROVERS
& ASSOCIATES**

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

March 14, 2013

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 2012 through February 2013)
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 2012 through February 2013.

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, 2012 to February 28, 2013
- Dates of Sampling: September 12, 2012; October 17, 2012; November 14, 2012; December 12, 2012; January 16, 2013; and February 20, 2013
- All samples were collected from the effluent sampling port of Tank T12
- Total Monthly Discharges:
 - September 2012: 499,313
 - October 2012: 525,260
 - November 2012: 534,254
 - December 2012: 286,083
 - January 2013: 429,435
 - February 2013: 386,602

Equal
Employment Opportunity
Employer

REGISTERED COMPANY FOR
ISO 9001
ENGINEERING DESIGN



**CONESTOGA-ROVERS
& ASSOCIATES**

March 14, 2013

- 2 -

Reference No. 012607

- Total Flow to Date: 145,019,739 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/5/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 2012

Date	Inspection Visits	Changes or Replacements of Treatment System	Samples Taken	Quantities of Groundwater Discharged / Day - GAL	Notes
09/01/12	None	None			
09/02/12	None	None			
09/03/12	None	None			
09/04/12	None	None	On-Site	13,930	
09/05/12	None	None	On-Site	34,560	
09/06/12	None	None	On-Site	5,037	
09/07/12	None	None	On-Site	41,530	
09/08/12	None	None			
09/09/12	None	None			
09/10/12	None	None	On-Site	4,261	
09/11/12	None	None	On-Site	23,597	
09/12/12	None	None	On-site & Sampled	35,359	
09/13/12	None	None	On-Site	33,373	
09/14/12	None	None	On-Site	38,779	
09/15/12	None	None			
09/16/12	None	None			
09/17/12	None	None	On-Site	5,721	
09/18/12	None	None	On-Site	29,438	
09/19/12	None	None	On-Site	42,413	
09/20/12	None	None	On-Site	21,618	
09/21/12	None	None	On-Site	30,179	
09/22/12	None	None			
09/23/12	None	None			
09/24/12	None	None	On-Site	6,459	
09/25/12	None	None	On-Site	35,975	
09/26/12	None	None	On-Site	32,561	
09/27/12	None	None	On-Site	33,112	
09/28/12	None	None	On-Site	31,410	
09/29/12	None	None			
09/30/12	None	None			

Total Monthly Discharge (gal)

499,313

SECTION D: REPORTING REQUIREMENTS/b) iii)**12950 Eckles Road****Livonia, MI 48150****Permit No.: SD6-94508****Maintenance Log - October 2012**

Date	Inspection Visits	Changes or Replacements of Treatment System	Samples Taken	Quantities of Groundwater Discharged / Day - GAL	Notes
10/01/12	None	None	On-Site	2,928	
10/02/12	None	None	On-Site	33,209	
10/03/12	None	None	On-Site	27,571	
10/04/12	None	None	On-Site	30,282	
10/05/12	None	None	On-Site	27,333	
10/06/12	None	None			
10/07/12	None	None			
10/08/12	None	None	On-Site	1,873	
10/09/12	None	None	On-Site	35,789	
10/10/12	None	None	On-Site	16,032	
10/11/12	None	None	On-Site	14,315	
10/12/12	None	None	On-Site		
10/13/12	None	None			
10/14/12	None	None			
10/15/12	None	None	On-Site	694	
10/16/12	None	None	On-Site	32,594	
10/17/12	None	None	On-site & Sampled	36,268	
10/18/12	None	None	On-Site	34,604	
10/19/12	None	None	On-Site	15,027	
10/20/12	None	None			
10/21/12	None	None			
10/22/12	None	None	On-Site		
10/23/12	None	None	On-Site	35,989	
10/24/12	None	None	On-Site	37,767	
10/25/12	None	None	On-Site	27,992	
10/26/12	None	None	On-Site	44,709	
10/27/12	None	None			
10/28/12	None	None			
10/29/12	None	None	On-Site	3,397	
10/30/12	None	None	On-Site	36,451	
10/31/12	None	None	On-Site	30,436	

Total Monthly Discharge (gal)

525,260

SECTION D: REPORTING REQUIREMENTS/b) iii)**12950 Eckles Road****Livonia, MI 48150****Permit No.: SD6-94508****Maintenance Log - November 2012**

Date	Inspection Visits	Changes or Replacements of Treatment System	Samples Taken	Quantities of Groundwater Discharged / Day - GAL	Notes
11/01/12	None	None	On-Site	22,374	
11/02/12	None	None	On-Site	44,983	
11/03/12	None	None			
11/04/12	None	None			
11/05/12	None	None	On-Site	4,263	
11/06/12	None	None	On-Site	36,590	
11/07/12	None	None	On-Site	27,464	
11/08/12	None	None	On-Site	30,815	
11/09/12	None	None			
11/10/12	None	None			
11/11/12	None	None			
11/12/12	None	None	On-Site	5,276	
11/13/12	None	None	On-Site	29,299	
11/14/12	None	None	On-site & Sampled	27,505	
11/15/12	None	None	On-Site	35,328	
11/16/12	None	None	On-Site	25,622	
11/17/12	None	None			
11/18/12	None	None			
11/19/12	None	None	On-Site	7,667	
11/20/12	None	None	On-Site	31,977	
11/21/12	None	None	On-Site	23,977	
11/22/12	None	None	On-Site	32,487	
11/23/12	None	None	On-Site	30,898	
11/24/12	None	None			
11/25/12	None	None			
11/26/12	None	None	On-Site	4,609	
11/27/12	None	None	On-Site	34,016	
11/28/12	None	None	On-Site	29,365	
11/29/12	None	None	On-Site	27,732	
11/30/12	None	None	On-Site	22,005	

Total Monthly Discharge (gal)

534,254

SECTION D: REPORTING REQUIREMENTS/b) iii)**12950 Eckles Road****Livonia, MI 48150****Permit No.: SD6-94508****Maintenance Log - December 2012**

Date	Inspection Visits	Changes or Replacements of Treatment System	Samples Taken	Quantities of Groundwater Discharged / Day - GAL	Notes
12/01/12	None	None			
12/02/12	None	None			
12/03/12	None	None	On-Site		
12/04/12	None	None	On-Site	3,712	
12/05/12	None	None	On-Site	28,126	
12/06/12	None	None	On-Site	32,774	
12/07/12	None	None	On-Site	29,291	
12/08/12	None	None		21,193	
12/09/12	None	None			
12/10/12	None	None	On-Site	3,563	
12/11/12	None	None	On-Site	29,441	
12/12/12	None	None	On-site & Sampled	29,885	
12/13/12	None	None	On-Site	22,561	
12/14/12	None	None	On-Site		
12/15/12	None	None			
12/16/12	None	None			
12/17/12	None	None	On-Site	744	
12/18/12	None	None	On-Site	14,499	
12/19/12	None	None			System down - high ORP chemical feed pump down
12/20/12	None	None			System down - high ORP chemical feed pump down
12/21/12	None	None			System down - high ORP chemical feed pump down
12/22/12	None	None			
12/23/12	None	None			
12/24/12	None	None			
12/25/12	None	None			
12/26/12	None	None	On-Site	13,834	
12/27/12	None	None	On-Site	27,130	
12/28/12	None	None	On-Site	25,021	
12/29/12	None	None			
12/30/12	None	None			
12/31/12	None	None	On-Site	4,311	

Total Monthly Discharge (gal)

286,083

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

Date	Inspection Visits	Changes or Replacements of Treatment System	Samples Taken	Quantities of Groundwater Discharged / Day - GAL	Notes
01/01/13	None	None	On-Site	36,236	
01/02/13	None	None	On-Site	16,979	
01/03/13	None	None	On-Site	3,904	
01/04/13	None	None	On-Site	29,122	
01/05/13	None	None			
01/06/13	None	None			
01/07/13	None	None	On-Site	6,813	
01/08/13	None	None	On-Site	30,911	
01/09/13	None	None	On-Site	26,196	
01/10/13	None	None	On-Site	26,236	
01/11/13	None	None	On-Site	4,110	
01/12/13	None	None			
01/13/13	None	None			
01/14/13	None	None	On-Site	4,336	
01/15/13	None	None	On-Site	28,063	
01/16/13	None	None	On-site & Sampled	26,444	
01/17/13	None	None	On-Site	23,149	
01/18/13	None	None	On-Site	23,018	
01/19/13	None	None			
01/20/13	None	None			
01/21/13	None	None	On-Site	6,096	
01/22/13	None	None	On-Site	21,826	
01/23/13	None	None	On-Site	13,555	
01/24/13	None	None	On-Site	26,713	
01/25/13	None	None	On-Site	6,096	
01/26/13	None	None			
01/27/13	None	None			
01/28/13	None	None	On-Site	3,009	
01/29/13	None	None	On-Site	24,314	
01/30/13	None	None	On-Site	18,749	
01/31/13	None	None	On-Site	23,560	

Total Monthly Discharge (gal)

429,435

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

Date	Inspection Visits	Changes or Replacements of Treatment System	Samples Taken	Quantities of Groundwater Discharged / Day - GAL	Notes
02/01/13	None	None	On-Site	19,693	
02/02/13	None	None			
02/03/13	None	None			
02/04/13	None	None	On-Site	5,822	
02/05/13	None	None	On-Site	29,111	
02/06/13	None	None	On-Site	10,638	
02/07/13	None	None	On-Site	23,919	
02/08/13	None	None	On-Site	36,308	
02/09/13	None	None			
02/10/13	None	None			
02/11/13	None	None	On-Site	1,708	
02/12/13	None	None	On-Site	27,314	
02/13/13	None	None	On-Site	29,274	
02/14/13	None	None	On-Site	25,864	
02/15/13	None	None	On-Site	20,316	
02/16/13	None	None			
02/17/13	None	None			
02/18/13	None	None	On-Site	5,714	
02/19/13	None	None	On-Site	25,113	
02/20/13	None	None	On-site & Sampled	29,907	
02/21/13	None	None	On-Site	6,598	
02/22/13	None	None	On-Site	25,155	
02/23/13	None	None			
02/24/13	None	None			
02/25/13	None	None	On-Site	1,997	
02/26/13	None	None	On-Site	21,530	
02/27/13	None	None	On-Site	24,346	
02/28/13	None	None	On-Site	16,277	

Total Monthly Discharge (gal)

386,602

SECTION D: REPORTING REQUIREMENTS/b) iii)**12950 Eckles Road****Livonia, MI 48150****Permit No.: SD6-94508****Maintenance Log- ISCO Sample Analyses - September 2012**

	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
9/1/2012	9/1/2012					
9/2/2012	9/2/2012					
9/3/2012	9/3/2012					
9/4/2012	9/4/2012	8.75	0.05	0.00	0.05	
9/5/2012	9/5/2012	9.04	0.05	0.00	0.00	
9/6/2012	9/6/2012	8.90	0.05	0.00	0.00	
9/7/2012	9/7/2012	9.05	0.05	0.00	0.00	
9/8/2012	9/8/2012					
9/9/2012	9/9/2012					
9/10/2012	9/10/2012	8.76	0.05	0.00	0.00	
9/11/2012	9/11/2012	9.19	0.05	0.05	0.15	
9/12/2012	9/12/2012	9.12	0.01	0.10	0.25	
9/13/2012	9/13/2012	9.10	0.03	0.10	0.25	
9/14/2012	9/14/2012	9.07	0.03	0.05	0.25	
9/15/2012	9/15/2012					
9/16/2012	9/16/2012					
9/17/2012	9/17/2012	8.58	0.02	0.05	0.25	
9/18/2012	9/18/2012	9.37	0.03	0.00	0.05	
9/19/2012	9/19/2012	9.18	0.03	0.00	0.00	
9/20/2012	9/20/2012	9.15	0.05	0.00	0.00	
9/21/2012	9/21/2012	9.11	0.05	0.00	0.00	
9/22/2012	9/22/2012					
9/23/2012	9/23/2012					
9/24/2012	9/24/2012	8.85	0.05	0.00	0.00	
9/25/2012	9/25/2012	9.00	0.15	0.00	0.00	
9/26/2012	9/26/2012	8.99	0.20	0.00	0.00	
9/27/2012	9/27/2012	9.00	0.03	0.00	0.00	
9/28/2012	9/28/2012	8.94	0.06	0.00	0.00	
9/29/2012	9/29/2012					
9/30/2012	9/30/2012					

SECTION D: REPORTING REQUIREMENTS/b) iii)**12950 Eckles Road****Livonia, MI 48150****Permit No.: SD6-94508****Maintenance Log- ISCO Sample Analyses - October 2012**

	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
10/1/2012	10/1/2012	8.54	0.06	0.00	0.00	
10/2/2012	10/2/2012	9.12	0.10	0.00	0.00	
10/3/2012	10/3/2012	9.09	0.10	0.00	0.00	
10/4/2012	10/4/2012	9.23	0.15	0.00	0.00	
10/5/2012	10/5/2012	9.13	0.00	0.00	0.00	
10/6/2012	10/6/2012					
10/7/2012	10/7/2012					
10/8/2012	10/8/2012	8.71	0.00	0.00	0.00	
10/9/2012	10/9/2012	8.80	0.00	0.00	0.00	
10/10/2012	10/10/2012	8.79	0.00	0.00	0.00	
10/11/2012	10/11/2012	8.32	0.00	0.00	0.00	
10/12/2012	10/12/2012					
10/13/2012	10/13/2012					
10/14/2012	10/14/2012					
10/15/2012	10/15/2012	8.87	0.00	0.00	0.00	
10/16/2012	10/16/2012	9.21	0.06	0.00	0.00	
10/17/2012	10/17/2012	9.15	0.06	0.00	0.00	
10/18/2012	10/18/2012	9.15	0.10	0.00	0.00	
10/19/2012	10/19/2012	8.64	0.08	0.05	0.00	
10/20/2012	10/20/2012					
10/21/2012	10/21/2012					
10/22/2012	10/22/2012	8.21	0.08	0.05	0.00	
10/23/2012	10/23/2012	9.18	0.11	0.00	0.00	
10/24/2012	10/24/2012	9.09	0.17	0.00	0.00	
10/25/2012	10/25/2012	9.07	0.12	0.00	0.00	
10/26/2012	10/26/2012	9.04	0.15	0.00	0.00	
10/27/2012	10/27/2012					
10/28/2012	10/28/2012					
10/29/2012	10/29/2012	8.71	0.15	0.00	0.00	
10/30/2012	10/30/2012	9.18	0.17	0.00	0.00	
10/31/2012	10/31/2012	9.38	0.16	0.00	0.00	

SECTION D: REPORTING REQUIREMENTS/b) iii)**12950 Eckles Road****Livonia, MI 48150****Permit No.: SD6-94508****Maintenance Log- ISCO Sample Analyses - November 2012**

	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
11/1/2012	11/1/2012	9.25	0.19	0.00	0.00	
11/2/2012	11/2/2012	9.26	0.15	0.00	0.00	
11/3/2012	11/3/2012					
11/4/2012	11/4/2012					
11/5/2012	11/5/2012	8.65	0.15	0.00	0.00	
11/6/2012	11/6/2012	9.06	0.18	0.00	0.00	
11/7/2012	11/7/2012	9.07	0.19	0.00	0.00	
11/8/2012	11/8/2012	9.11	0.27	0.00	0.00	
11/9/2012	11/9/2012					
11/10/2012	11/10/2012					
11/11/2012	11/11/2012					
11/12/2012	11/12/2012	8.83	0.27	0.00	0.00	
11/13/2012	11/13/2012	9.34	0.03	0.00	0.00	
11/14/2012	11/14/2012	9.30	0.04	0.05	0.05	
11/15/2012	11/15/2012	9.31	0.06	0.10	0.10	
11/16/2012	11/16/2012	9.30	0.06	0.05	0.05	
11/17/2012	11/17/2012					
11/18/2012	11/18/2012					
11/19/2012	11/19/2012	8.49	0.06	0.05	0.05	
11/20/2012	11/20/2012	8.80	0.03	0.15	0.15	
11/21/2012	11/21/2012	9.21	0.03	0.05	0.10	
11/22/2012	11/22/2012	9.01	0.03	0.20	0.25	
11/23/2012	11/23/2012	9.01	0.06	0.05	0.05	
11/24/2012	11/24/2012					
11/25/2012	11/25/2012					
11/26/2012	11/26/2012	8.62	0.07	0.00	0.05	
11/27/2012	11/27/2012	9.01	0.05	0.00	0.05	
11/28/2012	11/28/2012	9.02	0.06	0.00	0.05	
11/29/2012	11/29/2012	8.96	0.06	0.05	0.10	
11/30/2012	11/30/2012	8.89	0.07	0.05	0.10	

SECTION D: REPORTING REQUIREMENTS/b) iii)**12950 Eckles Road****Livonia, MI 48150****Permit No.: SD6-94508****Maintenance Log- ISCO Sample Analyses - December 2012**

	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
12/1/2012	12/1/2012					
12/2/2012	12/2/2012					
12/3/2012	12/3/2012	8.75	0.10	0.00	0.10	
12/4/2012	12/4/2012	9.20	0.05	0.00	0.00	
12/5/2012	12/5/2012	9.02	0.04	0.00	0.00	
12/6/2012	12/6/2012	8.90	0.04	0.00	0.00	
12/7/2012	12/7/2012	9.22	0.04	0.00	0.00	
12/8/2012	12/8/2012					
12/9/2012	12/9/2012					
12/10/2012	12/10/2012	8.52	0.04	0.00	0.00	
12/11/2012	12/11/2012	8.83	0.05	0.00	0.00	
12/12/2012	12/12/2012	8.84	0.07	0.00	0.00	
12/13/2012	12/13/2012	8.70	0.09	0.00	0.05	
12/14/2012	12/14/2012					System down - high pH in T4
12/15/2012	12/15/2012					
12/16/2012	12/16/2012					
12/17/2012	12/17/2012	8.51	0.06	0.00	0.05	
12/18/2012	12/18/2012	8.46	0.16	0.05	0.10	
12/19/2012	12/19/2012					System down - high ORP chemical pump down
12/20/2012	12/20/2012					System down - high ORP chemical pump down
12/21/2012	12/21/2012					System down - high ORP chemical pump down
12/22/2012	12/22/2012					
12/23/2012	12/23/2012					
12/24/2012	12/24/2012					
12/25/2012	12/25/2012					
12/26/2012	12/26/2012	8.61	0.11	0.05	0.10	
12/27/2012	12/27/2012	8.85	0.21	0.00	0.00	
12/28/2012	12/28/2012	8.84	0.26	0.00	0.00	
12/29/2012	12/29/2012					
12/30/2012	12/30/2012					
12/31/2012	12/31/2012	8.46	0.25	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 - January 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
1/1/2013	1/1/2013	9.15	0.08	0.10	0.15	
1/2/2013	1/2/2013	9.15	0.09	0.20	0.20	
1/3/2013	1/3/2013	8.74	0.07	0.10	0.15	
1/4/2013	1/4/2013	9.12	0.06	0.10	0.15	
1/5/2013	1/5/2013					
1/6/2013	1/6/2013					
1/7/2013	1/7/2013	8.49	0.05	0.05	0.10	
1/8/2013	1/8/2013	9.54	0.04	0.00	0.05	
1/9/2013	1/9/2013	9.44	0.05	0.00	0.00	
1/10/2013	1/10/2013	9.46	0.05	0.00	0.00	
1/11/2013	1/11/2013	9.11	0.05	0.00	0.00	
1/12/2013	1/12/2013					
1/13/2013	1/13/2013					
1/14/2013	1/14/2013	9.22	0.06	0.00	0.00	
1/15/2013	1/15/2013	9.11	0.11	0.00	0.00	
1/16/2013	1/16/2013	9.30	0.16	0.00	0.00	
1/17/2013	1/17/2013	9.09	0.19	0.00	0.00	
1/18/2013	1/18/2013	9.12	0.23	0.00	0.00	
1/19/2013	1/19/2013					
1/20/2013	1/20/2013					
1/21/2013	1/21/2013	8.49	0.07	0.00	0.00	
1/22/2013	1/22/2013	9.15	0.22	0.00	0.00	
1/23/2013	1/23/2013	8.58	0.19	0.00	0.00	
1/24/2013	1/24/2013	9.49	0.15	0.00	0.10	
1/25/2013	1/25/2013	9.19	0.20	0.00	0.10	
1/26/2013	1/26/2013					
1/27/2013	1/27/2013					
1/28/2013	1/28/2013	8.81	0.20	0.00	0.10	
1/29/2013	1/29/2013	9.51	0.32	0.00	0.00	
1/30/2013	1/30/2013	8.85	0.15	0.00	0.05	
1/31/2013	1/31/2013	9.45	0.14	0.00	0.00	

SECTION D: REPORTING REQUIREMENTS/b) iii)**12950 Eckles Road****Livonia, MI 48150****Permit No.: SD6-94508****Maintenance Log- ISCO Sample Analyses - February 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
2/1/2013	2/1/2013	9.85	0.19	0.00	0.00	
2/2/2013	2/2/2013					
2/3/2013	2/3/2013					
2/4/2013	2/4/2013	8.93	0.07	0.00	0.00	
2/5/2013	2/5/2013	9.30	0.51	0.00	0.15	
2/6/2013	2/6/2013	9.00	0.29	0.00	0.05	
2/7/2013	2/7/2013	9.80	0.14	0.00	0.15	
2/8/2013	2/8/2013	9.53	0.20	0.00	0.00	
2/9/2013	2/9/2013					
2/10/2013	2/10/2013					
2/11/2013	2/11/2013	9.24	0.19	0.00	0.00	
2/12/2013	2/12/2013	10.90	0.08	0.00	0.05	
2/13/2013	2/13/2013	11.14	0.09	0.00	0.15	
2/14/2013	2/14/2013	10.77	0.08	0.00	0.00	
2/15/2013	2/15/2013	10.33	0.11	0.00	0.05	
2/16/2013	2/16/2013					
2/17/2013	2/17/2013					
2/18/2013	2/18/2013	9.58	0.11	0.00	0.05	
2/19/2013	2/19/2013	9.08	0.21	0.05	0.10	
2/20/2013	2/20/2013	9.18	0.27	0.25	0.25	
2/21/2013	2/21/2013	8.91	0.12	0.15	0.25	
2/22/2013	2/22/2013	9.06	0.12	0.10	0.25	
2/23/2013	2/23/2013					
2/24/2013	2/24/2013					
2/25/2013	2/25/2013	7.95	0.02	0.10	0.25	
2/26/2013	2/26/2013	9.19	0.05	0.00	0.05	
2/27/2013	2/27/2013	9.14	0.08	0.05	0.10	
2/28/2013	2/28/2013	9.05	0.08	0.05	0.10	

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: 240-15106-1

Client Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

For:

Conestoga-Rovers & Associates, Inc.

14496 Sheldon Road, Suite 200

Plymouth, Michigan 48170

Attn: Mr. Paul Wiseman



Authorized for release by:

9/26/2012 8:05:26 AM

Denise Heckler

Project Manager II

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-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-15106-1

Job ID: 240-15106-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Conestoga-Rovers & Associates, Inc.

Project: 12607-T01-005, RACER Livonia/Eckles Rd

Report Number: 240-15106-1

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 North 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 09/13/2012; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 5.2 C.

POLYCHLORINATED BIPHENYLS (PCBS)

Sample WT-12607-091212-EE-001 (240-15106-1) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA Method 608. The samples were prepared on 09/18/2012 and analyzed on 09/20/2012.

No difficulties were encountered during the PCBs analysis.

All quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICP)

Sample WT-12607-091212-EE-001 (240-15106-1) was analyzed for total recoverable metals (ICP) in accordance with EPA Method 200.7. The samples were prepared on 09/17/2012 and analyzed on 09/18/2012.

No difficulties were encountered during the metals analysis.

All quality control parameters were within the acceptance limits.

Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-15106-1

Job ID: 240-15106-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

MERCURY

Sample WT-12607-091212-EE-001 (240-15106-1) was analyzed for mercury in accordance with EPA Method 245.1. The samples were prepared on 09/19/2012 and analyzed on 09/20/2012.

No difficulties were encountered during the mercury analysis.

All quality control parameters were within the acceptance limits.

TOTAL SUSPENDED SOLIDS

Sample WT-12607-091212-EE-001 (240-15106-1) was analyzed for total suspended solids in accordance with EPA Method 160.2. The samples were analyzed on 09/19/2012.

No difficulties were encountered during the TSS analysis.

All quality control parameters were within the acceptance limits.

HEM

Sample WT-12607-091212-EE-001 (240-15106-1) was analyzed for HEM in accordance with EPA Method 1664A. The samples were prepared and analyzed on 09/25/2012.

No difficulties were encountered during the HEM analysis.

All quality control parameters were within the acceptance limits.

HEXAVALENT CHROMIUM

Sample WT-12607-091212-EE-001 (240-15106-1) was analyzed for hexavalent chromium in accordance with SM 3500 CR D. The samples were analyzed on 09/13/2012.

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-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-15106-1

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.
☼	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
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
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-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-15106-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-15106-1	WT-12607-091212-EE-001	Water	09/12/12 16:30	09/13/12 09:40

Detection Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-15106-1

Client Sample ID: WT-12607-091212-EE-001

Lab Sample ID: 240-15106-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.22		0.050	mg/L	1		200.7 Rev 4.4	Total
Nickel	0.035		0.010	mg/L	1		200.7 Rev 4.4	Recoverable
Cr (VI)	0.14		0.0050	mg/L	1		SM 3500 CR D	Total
								Recoverable
								Total/NA

Method Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-15106-1

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

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

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

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

Laboratory References:

TAL NC = 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-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-15106-1

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

Client Sample ID: WT-12607-091212-EE-001

Date Collected: 09/12/12 16:30

Date Received: 09/13/12 09:40

Lab Sample ID: 240-15106-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	ug/L		09/18/12 10:43	09/20/12 10:38	1
Aroclor-1221	0.095	U	0.095	ug/L		09/18/12 10:43	09/20/12 10:38	1
Aroclor-1232	0.095	U	0.095	ug/L		09/18/12 10:43	09/20/12 10:38	1
Aroclor-1242	0.095	U	0.095	ug/L		09/18/12 10:43	09/20/12 10:38	1
Aroclor-1248	0.095	U	0.095	ug/L		09/18/12 10:43	09/20/12 10:38	1
Aroclor-1254	0.095	U	0.095	ug/L		09/18/12 10:43	09/20/12 10:38	1
Aroclor-1260	0.095	U	0.095	ug/L		09/18/12 10:43	09/20/12 10:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	44		10 - 114	09/18/12 10:43	09/20/12 10:38	1
Tetrachloro-m-xylene	70		15 - 131	09/18/12 10:43	09/20/12 10:38	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-15106-1

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

Client Sample ID: WT-12607-091212-EE-001

Date Collected: 09/12/12 16:30

Date Received: 09/13/12 09:40

Lab Sample ID: 240-15106-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.22		0.050	mg/L		09/17/12 12:36	09/18/12 21:38	1
Nickel	0.035		0.010	mg/L		09/17/12 12:36	09/18/12 21:38	1
Lead	0.050	U	0.050	mg/L		09/17/12 12:36	09/18/12 21:38	1
Zinc	0.020	U	0.020	mg/L		09/17/12 12:36	09/18/12 21:38	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-15106-1

Method: 245.1 - Mercury (CVAA)

Client Sample ID: WT-12607-091212-EE-001

Date Collected: 09/12/12 16:30

Date Received: 09/13/12 09:40

Lab Sample ID: 240-15106-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		09/19/12 13:40	09/20/12 15:25	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-15106-1

General Chemistry

Client Sample ID: WT-12607-091212-EE-001

Date Collected: 09/12/12 16:30

Date Received: 09/13/12 09:40

Lab Sample ID: 240-15106-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	4.0	U	4.0	mg/L			09/19/12 13:45	1
HEM	4.7	U	4.7	mg/L		09/25/12 09:20	09/25/12 12:55	1
Cr (VI)	0.14		0.0050	mg/L			09/13/12 15:35	1

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-15106-1

GC Semi VOA

Prep Batch: 58178

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-15106-1	WT-12607-091212-EE-001	Total/NA	Water	3510C	
LCS 240-58178/3-A	Lab Control Sample	Total/NA	Water	3510C	
MB 240-58178/2-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 58430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-15106-1	WT-12607-091212-EE-001	Total/NA	Water	608	58178
LCS 240-58178/3-A	Lab Control Sample	Total/NA	Water	608	58178
MB 240-58178/2-A	Method Blank	Total/NA	Water	608	58178

Metals

Prep Batch: 58036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-15106-1	WT-12607-091212-EE-001	Total Recoverable	Water	200.7	
LCS 240-58036/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
MB 240-58036/1-A	Method Blank	Total Recoverable	Water	200.7	

Analysis Batch: 58285

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-15106-1	WT-12607-091212-EE-001	Total Recoverable	Water	200.7 Rev 4.4	58036
LCS 240-58036/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	58036
MB 240-58036/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	58036

Prep Batch: 58291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-15106-1	WT-12607-091212-EE-001	Total/NA	Water	245.1	
LCS 240-58291/2-A	Lab Control Sample	Total/NA	Water	245.1	
MB 240-58291/1-A	Method Blank	Total/NA	Water	245.1	

Analysis Batch: 58656

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-15106-1	WT-12607-091212-EE-001	Total/NA	Water	245.1	58291
LCS 240-58291/2-A	Lab Control Sample	Total/NA	Water	245.1	58291
MB 240-58291/1-A	Method Blank	Total/NA	Water	245.1	58291

General Chemistry

Analysis Batch: 57701

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-15106-1	WT-12607-091212-EE-001	Total/NA	Water	SM 3500 CR D	
LCS 240-57701/4	Lab Control Sample	Total/NA	Water	SM 3500 CR D	
MB 240-57701/3	Method Blank	Total/NA	Water	SM 3500 CR D	

Analysis Batch: 58374

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-15106-1	WT-12607-091212-EE-001	Total/NA	Water	160.2	
LCS 240-58374/2	Lab Control Sample	Total/NA	Water	160.2	
MB 240-58374/1	Method Blank	Total/NA	Water	160.2	

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-15106-1

General Chemistry (Continued)

Prep Batch: 58943

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-15106-1	WT-12607-091212-EE-001	Total/NA	Water	1664A	
240-15106-1 MS	WT-12607-091212-EE-001	Total/NA	Water	1664A	
LCS 240-58943/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 240-58943/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 58997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-15106-1	WT-12607-091212-EE-001	Total/NA	Water	1664A	58943
240-15106-1 MS	WT-12607-091212-EE-001	Total/NA	Water	1664A	58943
LCS 240-58943/2-A	Lab Control Sample	Total/NA	Water	1664A	58943
MB 240-58943/1-A	Method Blank	Total/NA	Water	1664A	58943

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-15106-1

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

Lab Sample ID: MB 240-58178/2-A

Matrix: Water

Analysis Batch: 58430

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 58178

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	ug/L		09/18/12 10:43	09/20/12 10:54	1
Aroclor-1221	0.10	U	0.10	ug/L		09/18/12 10:43	09/20/12 10:54	1
Aroclor-1232	0.10	U	0.10	ug/L		09/18/12 10:43	09/20/12 10:54	1
Aroclor-1242	0.10	U	0.10	ug/L		09/18/12 10:43	09/20/12 10:54	1
Aroclor-1248	0.10	U	0.10	ug/L		09/18/12 10:43	09/20/12 10:54	1
Aroclor-1254	0.10	U	0.10	ug/L		09/18/12 10:43	09/20/12 10:54	1
Aroclor-1260	0.10	U	0.10	ug/L		09/18/12 10:43	09/20/12 10:54	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	66		10 - 114	09/18/12 10:43	09/20/12 10:54	1
Tetrachloro-m-xylene	77		15 - 131	09/18/12 10:43	09/20/12 10:54	1

Lab Sample ID: LCS 240-58178/3-A

Matrix: Water

Analysis Batch: 58430

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 58178

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	2.29		ug/L		92	8 - 127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	65		10 - 114
Tetrachloro-m-xylene	78		15 - 131

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 240-58036/1-A

Matrix: Water

Analysis Batch: 58285

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 58036

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.050	U	0.050	mg/L		09/17/12 12:36	09/18/12 19:44	1
Nickel	0.010	U	0.010	mg/L		09/17/12 12:36	09/18/12 19:44	1
Lead	0.050	U	0.050	mg/L		09/17/12 12:36	09/18/12 19:44	1
Zinc	0.020	U	0.020	mg/L		09/17/12 12:36	09/18/12 19:44	1

Lab Sample ID: LCS 240-58036/2-A

Matrix: Water

Analysis Batch: 58285

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 58036

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	0.511		mg/L		102	85 - 115
Lead	0.500	0.486		mg/L		97	85 - 115
Zinc	0.500	0.516		mg/L		103	85 - 115

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-15106-1

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 240-58291/1-A

Matrix: Water

Analysis Batch: 58656

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 58291

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		09/19/12 13:40	09/20/12 15:14	1

Lab Sample ID: LCS 240-58291/2-A

Matrix: Water

Analysis Batch: 58656

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 58291

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00500	0.00521		mg/L		104	85 - 115

Method: 160.2 - Solids, Total Suspended (TSS)

Lab Sample ID: MB 240-58374/1

Matrix: Water

Analysis Batch: 58374

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			09/19/12 13:45	1

Lab Sample ID: LCS 240-58374/2

Matrix: Water

Analysis Batch: 58374

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	31.9	25.0		mg/L		78	73 - 113

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 240-58943/1-A

Matrix: Water

Analysis Batch: 58997

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 58943

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	5.0	U	5.0	mg/L		09/25/12 09:20	09/25/12 11:50	1

Lab Sample ID: LCS 240-58943/2-A

Matrix: Water

Analysis Batch: 58997

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 58943

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM	40.0	32.3		mg/L		81	78 - 114

Lab Sample ID: 240-15106-1 MS

Matrix: Water

Analysis Batch: 58997

Client Sample ID: WT-12607-091212-EE-001

Prep Type: Total/NA

Prep Batch: 58943

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM	4.7	U	38.1	32.7		mg/L		82	78 - 114

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-15106-1

Method: SM 3500 CR D - Chromium, Hexavalent

Lab Sample ID: MB 240-57701/3

Matrix: Water

Analysis Batch: 57701

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			09/13/12 09:25	1

Lab Sample ID: LCS 240-57701/4

Matrix: Water

Analysis Batch: 57701

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	0.258		mg/L		103	80 - 118

Surrogate Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-15106-1

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCB1 (10-114)	TCX1 (15-131)
240-15106-1	WT-12607-091212-EE-001	44	70
LCS 240-58178/3-A	Lab Control Sample	65	78
MB 240-58178/2-A	Method Blank	66	77
Surrogate Legend			
DCB = DCB Decachlorobiphenyl			
TCX = Tetrachloro-m-xylene			

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-15106-1

Client Sample ID: WT-12607-091212-EE-001

Lab Sample ID: 240-15106-1

Date Collected: 09/12/12 16:30

Matrix: Water

Date Received: 09/13/12 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			58178	09/18/12 10:43	CC	TAL NC
Total/NA	Analysis	608		1	58430	09/20/12 10:38	LH	TAL NC
Total Recoverable	Prep	200.7			58036	09/17/12 12:36	SG	TAL NC
Total Recoverable	Analysis	200.7 Rev 4.4		1	58285	09/18/12 21:38	BD	TAL NC
Total/NA	Prep	245.1			58291	09/19/12 13:40	LM	TAL NC
Total/NA	Analysis	245.1		1	58656	09/20/12 15:25	DH	TAL NC
Total/NA	Analysis	SM 3500 CR D		1	57701	09/13/12 15:35	CN	TAL NC
Total/NA	Analysis	160.2		1	58374	09/19/12 13:45	AM	TAL NC
Total/NA	Prep	1664A			58943	09/25/12 09:20	BW	TAL NC
Total/NA	Analysis	1664A		1	58997	09/25/12 12:55	BW	TAL NC

Laboratory References:

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

Certification Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-15106-1

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	NELAC	9	01144CA	06-30-13
Connecticut	State Program	1	PH-0590	12-31-13
Florida	NELAC	4	E87225	06-30-13
Georgia	State Program	4	N/A	06-30-13
Illinois	NELAC	5	200004	07-31-13
Kansas	NELAC	7	E-10336	01-31-13
Kentucky	State Program	4	58	11-16-12
L-A-B	DoD ELAP		L2315	02-28-13
Minnesota	NELAC	5	039-999-348	12-31-12
Nevada	State Program	9	OH-000482008A	07-31-12
New Jersey	NELAC	2	OH001	06-30-13
New York	NELAC	2	10975	04-01-13
Ohio VAP	State Program	5	CL0024	01-19-14
USDA	Federal		P330-11-00328	08-26-14
Virginia	NELAC	3	460175	09-14-13
Washington	State Program	10	C971	01-12-13
West Virginia DEP	State Program	3	210	12-31-12



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-09184

PAGE 1 OF 1

(See Reverse Side for Instructions)

Project No/Phase/Task Code: 12667-701-005		Laboratory Name: Test America		Lab Location: N. Canton		SSOW ID: 12667-701-005	
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)			
Chemistry Contact: Paul Wiseman (CRA)		SAMPLE TYPE		Carrier:			
Sampler(s): Erik Engnell		Grab (g) or Comp (C)		Airbill No:			
DATE TIME (mm/dd/yyyy) (hh:mm)		Matrix Code		Date Shipped:			
DATE TIME (mm/dd/yyyy) (hh:mm)		(see back of COC)		COMMENTS/SPECIAL INSTRUCTIONS:			
WT-12667-091212-EE-001		WT C		MS/MSD Request			
9/12/12 1630		V		Total Containers/Sample			
		V		Other:			
		V		EnCores 3x5-g, 1x25-g			
		V		Methano/Water (Soil)			
		V		Sulfuric Acid (H ₂ SO ₄)			
		V		Nitric Acid (HNO ₃)			
		V		Sodium Hydroxide (NaOH)			
		V		Total Containers/Sample			
		V		PCBs			
		V		Oil & Grease			
		V		Hexa Chrome			
		V		TSS			
		V		Metals			
		V		MS/MSD Request			
		V		Total Containers/Sample			
		V		Other:			
		V		EnCores 3x5-g, 1x25-g			
		V		Methano/Water (Soil)			
		V		Sulfuric Acid (H ₂ SO ₄)			
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		V		Nitric Acid (HNO ₃)			
		V		Sodium Hydroxide (NaOH)			
		V		Total Containers/Sample			
		V		Other:			
		V		EnCores 3x5			

TestAmerica Canton Sample Receipt Form/Narrative

Login # : 15106

Client CRA Site Name _____ By: [Signature]
Cooler Received on 9/13/12 Opened on 9/13/12 (Signature)
FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____
TestAmerica Cooler # 10.4 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# 1 (CF 0°C) Observed Sample Temp. 5.2 °C Corrected Sample Temp. 5.2 °C
IR GUN# 4G (CF -1°C) Observed Sample Temp. _____ °C Corrected Sample Temp. _____ °C
IR GUN# 5G (CF -1°C) Observed Sample Temp. _____ °C Corrected Sample Temp. _____ °C
IR GUN# 8 (CF 0°C) Observed Sample Temp. _____ °C Corrected Sample Temp. _____ °C

☐ Multiple
on Back2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1Yes 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

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

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)

Login Sample Receipt Checklist

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 240-15106-1

Login Number: 15106

List Source: TestAmerica Canton

List Number: 1

Creator: Maddux, Ann

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	REFER TO COOLER RECEIPT FORM
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	N/A	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	N/A	
Cooler Temperature is recorded.	N/A	
COC is present.	N/A	
COC is filled out in ink and legible.	N/A	
COC is filled out with all pertinent information.	N/A	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	N/A	
Samples are received within Holding Time.	N/A	
Sample containers have legible labels.	N/A	
Containers are not broken or leaking.	N/A	
Sample collection date/times are provided.	N/A	
Appropriate sample containers are used.	N/A	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	N/A	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

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: 240-16553-1

Client Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

For:

Conestoga-Rovers & Associates, Inc.

14496 Sheldon Road, Suite 200

Plymouth, Michigan 48170

Attn: Mr. Paul Wiseman



Authorized for release by:

10/31/2012 2:18:57 PM

Denise Heckler

Project Manager II

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-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-16553-1

Job ID: 240-16553-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Conestoga-Rovers & Associates, Inc.

Project: 12607-T01-005, RACER Livonia/Eckles Rd

Report Number: 240-16553-1

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 North 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 10/18/2012; 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 (GC-MS)

Sample WT-12607-101712-EE-001 (240-16553-1) was analyzed for volatile organic compounds (GC-MS) in accordance with EPA Method 624. The samples were analyzed on 10/23/2012.

The continuing calibration verification (CCV) for carbon tetrachloride associated with batch 62480 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data has been reported.

The laboratory control sample (LCS) for batch 62480 exceeded control limits for the following analytes: carbon tetrachloride. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data has been reported.

The method blank for batch 62480 contained methylene chloride above the reporting limit (RL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

No other difficulties were encountered during the VOCs analysis.

All other quality control parameters were within the acceptance limits.

Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-16553-1

Job ID: 240-16553-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)

Sample WT-12607-101712-EE-001 (240-16553-1) was analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA Method 625. The samples were prepared on 10/19/2012 and analyzed on 10/20/2012.

No difficulties were encountered during the SVOC analysis.

All quality control parameters were within the acceptance limits.

DIOXIN SCREEN

Sample WT-12607-101712-EE-001 (240-16553-1) was analyzed for Dioxin Screen in accordance with EPA Method 625 Dioxin Screen. The samples were prepared on 10/19/2012 and analyzed on 10/22/2012.

No difficulties were encountered during the Dioxin Screen analysis.

All quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS (PCBS)

Sample WT-12607-101712-EE-001 (240-16553-1) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA Method 608. The samples were prepared on 10/19/2012 and analyzed on 10/22/2012.

No difficulties were encountered during the PCBs analysis.

All quality control parameters were within the acceptance limits.

CHLORINATED PESTICIDES

Sample WT-12607-101712-EE-001 (240-16553-1) was analyzed for chlorinated pesticides in accordance with EPA Method 608. The samples were prepared on 10/19/2012 and analyzed on 10/25/2012.

The method blank (MB) and Laboratory Control Sample (LCS) in batch 62034 were analyzed outside the Pesticide Performance Evaluation Mixture (PEM) time window. The sample associated with this MB and LCS: WT-12607-101712-EE-001 (240-16553-1) was analyzed within the time window; therefore the data has been reported.

No difficulties were encountered during the pesticides analysis.

All quality control parameters were within the acceptance limits.

HEM

Sample WT-12607-101712-EE-001 (240-16553-1) was analyzed for HEM in accordance with EPA Method 1664A. The samples were prepared and analyzed on 10/30/2012.

No difficulties were encountered during the HEM analysis.

All quality control parameters were within the acceptance limits.

TOTAL SUSPENDED SOLIDS

Sample WT-12607-101712-EE-001 (240-16553-1) was analyzed for total suspended solids in accordance with SM 2540D. The samples were analyzed on 10/23/2012.

No difficulties were encountered during the TSS analysis.

All quality control parameters were within the acceptance limits.

HEXAVALENT CHROMIUM

Sample WT-12607-101712-EE-001 (240-16553-1) was analyzed for hexavalent chromium in accordance with SM 3500 CR D. The

Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-16553-1

Job ID: 240-16553-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

samples were analyzed on 10/18/2012.

No difficulties were encountered during the hexavalent chromium analysis.

All quality control parameters were within the acceptance limits.

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Definitions/Glossary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-16553-1

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.

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.
☼	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
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
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-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-16553-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-16553-1	WT-12607-101712-EE-001	Water	10/17/12 15:30	10/18/12 09:20

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Detection Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-16553-1

Client Sample ID: WT-12607-101712-EE-001

Lab Sample ID: 240-16553-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	1.1		1.0	ug/L	1		624	Total/NA
2,3,7,8-TCDD	NEG			ng/uL	1		625	Total/NA

Method Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-16553-1

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

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.

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

Laboratory References:

TAL NC = 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-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-16553-1

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

Client Sample ID: WT-12607-101712-EE-001

Date Collected: 10/17/12 15:30

Date Received: 10/18/12 09:20

Lab Sample ID: 240-16553-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	ug/L			10/23/12 19:05	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	ug/L			10/23/12 19:05	1
1,1,2-Trichloroethane	1.0	U	1.0	ug/L			10/23/12 19:05	1
Xylenes, Total	1.0	U	1.0	ug/L			10/23/12 19:05	1
1,1-Dichloroethane	1.1		1.0	ug/L			10/23/12 19:05	1
1,1-Dichloroethene	1.0	U	1.0	ug/L			10/23/12 19:05	1
1,2-Dichloroethane	1.0	U	1.0	ug/L			10/23/12 19:05	1
1,2-Dichloropropane	1.0	U	1.0	ug/L			10/23/12 19:05	1
Acrolein	10	U	10	ug/L			10/23/12 19:05	1
Acrylonitrile	10	U	10	ug/L			10/23/12 19:05	1
Benzene	1.0	U	1.0	ug/L			10/23/12 19:05	1
Bromoform	1.0	U	1.0	ug/L			10/23/12 19:05	1
Bromomethane	1.0	U	1.0	ug/L			10/23/12 19:05	1
Carbon tetrachloride	1.0	U *	1.0	ug/L			10/23/12 19:05	1
Chlorobenzene	1.0	U	1.0	ug/L			10/23/12 19:05	1
Chlorodibromomethane	1.0	U	1.0	ug/L			10/23/12 19:05	1
Chloroethane	1.0	U	1.0	ug/L			10/23/12 19:05	1
Chloroform	1.0	U	1.0	ug/L			10/23/12 19:05	1
Chloromethane	1.0	U	1.0	ug/L			10/23/12 19:05	1
2-Chloroethyl vinyl ether	2.0	U	2.0	ug/L			10/23/12 19:05	1
cis-1,3-Dichloropropene	1.0	U	1.0	ug/L			10/23/12 19:05	1
Dichlorobromomethane	1.0	U	1.0	ug/L			10/23/12 19:05	1
Ethylbenzene	1.0	U	1.0	ug/L			10/23/12 19:05	1
1,2-Dichlorobenzene	1.0	U	1.0	ug/L			10/23/12 19:05	1
Tetrachloroethene	1.0	U	1.0	ug/L			10/23/12 19:05	1
1,3-Dichlorobenzene	1.0	U	1.0	ug/L			10/23/12 19:05	1
Toluene	1.0	U	1.0	ug/L			10/23/12 19:05	1
1,4-Dichlorobenzene	1.0	U	1.0	ug/L			10/23/12 19:05	1
trans-1,3-Dichloropropene	1.0	U	1.0	ug/L			10/23/12 19:05	1
Trichloroethene	1.0	U	1.0	ug/L			10/23/12 19:05	1
Vinyl chloride	1.0	U	1.0	ug/L			10/23/12 19:05	1
Methylene Chloride	1.0	U	1.0	ug/L			10/23/12 19:05	1
trans-1,2-Dichloroethene	1.0	U	1.0	ug/L			10/23/12 19:05	1
1,3-Dichloropropene, Total	1.0	U	1.0	ug/L			10/23/12 19:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		81 - 112		10/23/12 19:05	1
1,2-Dichloroethane-d4 (Surr)	99		80 - 125		10/23/12 19:05	1
Toluene-d8 (Surr)	99		84 - 110		10/23/12 19:05	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-16553-1

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

Client Sample ID: WT-12607-101712-EE-001

Date Collected: 10/17/12 15:30

Date Received: 10/18/12 09:20

Lab Sample ID: 240-16553-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	NEG			ng/uL		10/19/12 12:18	10/22/12 10:59	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-16553-1

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

Client Sample ID: WT-12607-101712-EE-001

Date Collected: 10/17/12 15:30

Date Received: 10/18/12 09:20

Lab Sample ID: 240-16553-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
2,4,6-Trichlorophenol	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
2,4-Dichlorophenol	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
2,4-Dimethylphenol	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
2,4-Dinitrophenol	48	U	48	ug/L		10/19/12 12:17	10/20/12 23:14	1
2,4-Dinitrotoluene	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
2,6-Dinitrotoluene	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
2-Chloronaphthalene	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
2-Chlorophenol	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
2-Nitrophenol	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
3,3'-Dichlorobenzidine	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
4,6-Dinitro-2-methylphenol	48	U	48	ug/L		10/19/12 12:17	10/20/12 23:14	1
4-Bromophenyl phenyl ether	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
4-Chlorophenyl phenyl ether	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
4-Nitrophenol	48	U	48	ug/L		10/19/12 12:17	10/20/12 23:14	1
Acenaphthene	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
Acenaphthylene	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
Anthracene	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
Benzidine	95	U	95	ug/L		10/19/12 12:17	10/20/12 23:14	1
Benzo[a]anthracene	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
Benzo[a]pyrene	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
Benzo[b]fluoranthene	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
Benzo[g,h,i]perylene	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
Benzo[k]fluoranthene	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
Bis(2-chloroethoxy)methane	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
Bis(2-chloroethyl)ether	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
Bis(2-ethylhexyl) phthalate	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
bis (2-chloroisopropyl) ether	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
Butyl benzyl phthalate	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
Chrysene	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
Dibenz(a,h)anthracene	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
Diethyl phthalate	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
Dimethyl phthalate	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
Di-n-butyl phthalate	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
Di-n-octyl phthalate	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
Fluoranthene	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
Fluorene	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
Hexachlorobenzene	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
Hexachlorobutadiene	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
Hexachlorocyclopentadiene	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
Hexachloroethane	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
Indeno[1,2,3-cd]pyrene	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
Isophorone	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
Naphthalene	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
Nitrobenzene	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
N-Nitrosodimethylamine	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
N-Nitrosodi-n-propylamine	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
N-Nitrosodiphenylamine	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
4-Chloro-3-methylphenol	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
Pentachlorophenol	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
Phenanthrene	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-16553-1

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

Client Sample ID: WT-12607-101712-EE-001

Lab Sample ID: 240-16553-1

Date Collected: 10/17/12 15:30

Matrix: Water

Date Received: 10/18/12 09:20

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
Pyrene	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
1,2-Diphenylhydrazine	9.5	U	9.5	ug/L		10/19/12 12:17	10/20/12 23:14	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2-Fluorophenol	46		10 - 135			10/19/12 12:17	10/20/12 23:14	1
2,4,6-Tribromophenol	70		10 - 142			10/19/12 12:17	10/20/12 23:14	1
Nitrobenzene-d5	63		44 - 110			10/19/12 12:17	10/20/12 23:14	1
Phenol-d5	34		10 - 132			10/19/12 12:17	10/20/12 23:14	1
Terphenyl-d14	61		24 - 135			10/19/12 12:17	10/20/12 23:14	1
2-Fluorobiphenyl (Surr)	55		38 - 110			10/19/12 12:17	10/20/12 23:14	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-16553-1

Method: 608 - Organochlorine Pesticides in Water

Client Sample ID: WT-12607-101712-EE-001

Date Collected: 10/17/12 15:30

Date Received: 10/18/12 09:20

Lab Sample ID: 240-16553-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	0.048	U	0.048	ug/L		10/19/12 12:01	10/25/12 22:41	1
alpha-BHC	0.048	U	0.048	ug/L		10/19/12 12:01	10/25/12 22:41	1
beta-BHC	0.048	U	0.048	ug/L		10/19/12 12:01	10/25/12 22:41	1
delta-BHC	0.048	U	0.048	ug/L		10/19/12 12:01	10/25/12 22:41	1
gamma-BHC (Lindane)	0.048	U	0.048	ug/L		10/19/12 12:01	10/25/12 22:41	1
Chlordane (technical)	0.48	U	0.48	ug/L		10/19/12 12:01	10/25/12 22:41	1
Chlordane (technical) Peak 1	0.48	U	0.48	ug/L		10/19/12 12:01	10/25/12 22:41	1
Chlordane (technical) Peak 2	0.48	U	0.48	ug/L		10/19/12 12:01	10/25/12 22:41	1
Chlordane (technical) Peak 3	0.48	U	0.48	ug/L		10/19/12 12:01	10/25/12 22:41	1
Chlordane (technical) Peak 4	0.48	U	0.48	ug/L		10/19/12 12:01	10/25/12 22:41	1
4,4'-DDD	0.048	U	0.048	ug/L		10/19/12 12:01	10/25/12 22:41	1
4,4'-DDE	0.048	U	0.048	ug/L		10/19/12 12:01	10/25/12 22:41	1
4,4'-DDT	0.048	U	0.048	ug/L		10/19/12 12:01	10/25/12 22:41	1
Dieldrin	0.048	U	0.048	ug/L		10/19/12 12:01	10/25/12 22:41	1
Endosulfan I	0.048	U	0.048	ug/L		10/19/12 12:01	10/25/12 22:41	1
Endosulfan II	0.048	U	0.048	ug/L		10/19/12 12:01	10/25/12 22:41	1
Endosulfan sulfate	0.048	U	0.048	ug/L		10/19/12 12:01	10/25/12 22:41	1
Endrin	0.048	U	0.048	ug/L		10/19/12 12:01	10/25/12 22:41	1
Endrin aldehyde	0.048	U	0.048	ug/L		10/19/12 12:01	10/25/12 22:41	1
Heptachlor	0.048	U	0.048	ug/L		10/19/12 12:01	10/25/12 22:41	1
Heptachlor epoxide	0.048	U	0.048	ug/L		10/19/12 12:01	10/25/12 22:41	1
Toxaphene	1.9	U	1.9	ug/L		10/19/12 12:01	10/25/12 22:41	1
Toxaphene Peak 1	1.9	U	1.9	ug/L		10/19/12 12:01	10/25/12 22:41	1
Toxaphene Peak 2	1.9	U	1.9	ug/L		10/19/12 12:01	10/25/12 22:41	1
Toxaphene Peak 3	1.9	U	1.9	ug/L		10/19/12 12:01	10/25/12 22:41	1
Toxaphene Peak 4	1.9	U	1.9	ug/L		10/19/12 12:01	10/25/12 22:41	1
Toxaphene Peak 5	1.9	U	1.9	ug/L		10/19/12 12:01	10/25/12 22:41	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	37		10 - 151			10/19/12 12:01	10/25/12 22:41	1
Tetrachloro-m-xylene	78		10 - 151			10/19/12 12:01	10/25/12 22:41	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-16553-1

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

Client Sample ID: WT-12607-101712-EE-001

Date Collected: 10/17/12 15:30

Date Received: 10/18/12 09:20

Lab Sample ID: 240-16553-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	ug/L		10/19/12 12:14	10/22/12 09:26	1
Aroclor-1221	0.095	U	0.095	ug/L		10/19/12 12:14	10/22/12 09:26	1
Aroclor-1232	0.095	U	0.095	ug/L		10/19/12 12:14	10/22/12 09:26	1
Aroclor-1242	0.095	U	0.095	ug/L		10/19/12 12:14	10/22/12 09:26	1
Aroclor-1248	0.095	U	0.095	ug/L		10/19/12 12:14	10/22/12 09:26	1
Aroclor-1254	0.095	U	0.095	ug/L		10/19/12 12:14	10/22/12 09:26	1
Aroclor-1260	0.095	U	0.095	ug/L		10/19/12 12:14	10/22/12 09:26	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	56		10 - 114			10/19/12 12:14	10/22/12 09:26	1
Tetrachloro-m-xylene	70		15 - 131			10/19/12 12:14	10/22/12 09:26	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-16553-1

General Chemistry

Client Sample ID: WT-12607-101712-EE-001

Date Collected: 10/17/12 15:30

Date Received: 10/18/12 09:20

Lab Sample ID: 240-16553-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	4.8	U	4.8	mg/L		10/30/12 09:31	10/30/12 12:54	1
Total Suspended Solids	4.0	U	4.0	mg/L			10/23/12 10:47	1
Cr (VI)	0.0050	U	0.0050	mg/L			10/18/12 10:46	1

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-16553-1

GC/MS VOA

Analysis Batch: 62480

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-16553-1	WT-12607-101712-EE-001	Total/NA	Water	624	
LCS 240-62480/5	Lab Control Sample	Total/NA	Water	624	
MB 240-62480/32	Method Blank	Total/NA	Water	624	
MB 240-62480/4	Method Blank	Total/NA	Water	624	

GC/MS Semi VOA

Prep Batch: 62042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-16553-1	WT-12607-101712-EE-001	Total/NA	Water	625	
LCS 240-62042/3-A	Lab Control Sample	Total/NA	Water	625	
MB 240-62042/2-A	Method Blank	Total/NA	Water	625	

Prep Batch: 62043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-16553-1	WT-12607-101712-EE-001	Total/NA	Water	3510C	
MB 240-62043/2-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 62121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-16553-1	WT-12607-101712-EE-001	Total/NA	Water	625	62042
LCS 240-62042/3-A	Lab Control Sample	Total/NA	Water	625	62042
MB 240-62042/2-A	Method Blank	Total/NA	Water	625	62042

Analysis Batch: 62192

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-16553-1	WT-12607-101712-EE-001	Total/NA	Water	625	62043
MB 240-62043/2-A	Method Blank	Total/NA	Water	625	62043

GC Semi VOA

Prep Batch: 62034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-16553-1	WT-12607-101712-EE-001	Total/NA	Water	608	
LCS 240-62034/3-A	Lab Control Sample	Total/NA	Water	608	
MB 240-62034/2-A	Method Blank	Total/NA	Water	608	

Prep Batch: 62041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-16553-1	WT-12607-101712-EE-001	Total/NA	Water	3510C	
LCS 240-62041/5-A	Lab Control Sample	Total/NA	Water	3510C	
MB 240-62041/4-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 62159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-16553-1	WT-12607-101712-EE-001	Total/NA	Water	608	62041
LCS 240-62041/5-A	Lab Control Sample	Total/NA	Water	608	62041
MB 240-62041/4-A	Method Blank	Total/NA	Water	608	62041

Analysis Batch: 62715

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-16553-1	WT-12607-101712-EE-001	Total/NA	Water	608	62034

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-16553-1

GC Semi VOA (Continued)

Analysis Batch: 62715 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-62034/3-A	Lab Control Sample	Total/NA	Water	608	62034
MB 240-62034/2-A	Method Blank	Total/NA	Water	608	62034

General Chemistry

Analysis Batch: 61813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-16553-1	WT-12607-101712-EE-001	Total/NA	Water	SM 3500 CR D	
LCS 240-61813/4	Lab Control Sample	Total/NA	Water	SM 3500 CR D	
MB 240-61813/3	Method Blank	Total/NA	Water	SM 3500 CR D	

Analysis Batch: 62413

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-16553-1	WT-12607-101712-EE-001	Total/NA	Water	SM 2540D	
LCS 240-62413/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 240-62413/1	Method Blank	Total/NA	Water	SM 2540D	

Prep Batch: 63211

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-16553-1	WT-12607-101712-EE-001	Total/NA	Water	1664A	
LCS 240-63211/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 240-63211/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 63261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-16553-1	WT-12607-101712-EE-001	Total/NA	Water	1664A	63211
LCS 240-63211/2-A	Lab Control Sample	Total/NA	Water	1664A	63211
MB 240-63211/1-A	Method Blank	Total/NA	Water	1664A	63211

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-16553-1

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

Lab Sample ID: MB 240-62480/32

Matrix: Water

Analysis Batch: 62480

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			10/23/12 19:54	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	ug/L			10/23/12 19:54	1
1,1,2-Trichloroethane	1.0	U	1.0	ug/L			10/23/12 19:54	1
Xylenes, Total	1.0	U	1.0	ug/L			10/23/12 19:54	1
1,1-Dichloroethane	1.0	U	1.0	ug/L			10/23/12 19:54	1
1,1-Dichloroethene	1.0	U	1.0	ug/L			10/23/12 19:54	1
1,2-Dichloroethane	1.0	U	1.0	ug/L			10/23/12 19:54	1
1,2-Dichloropropane	1.0	U	1.0	ug/L			10/23/12 19:54	1
Acrolein	10	U	10	ug/L			10/23/12 19:54	1
Acrylonitrile	10	U	10	ug/L			10/23/12 19:54	1
Benzene	1.0	U	1.0	ug/L			10/23/12 19:54	1
Bromoform	1.0	U	1.0	ug/L			10/23/12 19:54	1
Bromomethane	1.0	U	1.0	ug/L			10/23/12 19:54	1
Carbon tetrachloride	1.0	U	1.0	ug/L			10/23/12 19:54	1
Chlorobenzene	1.0	U	1.0	ug/L			10/23/12 19:54	1
Chlorodibromomethane	1.0	U	1.0	ug/L			10/23/12 19:54	1
Chloroethane	1.0	U	1.0	ug/L			10/23/12 19:54	1
Chloroform	1.0	U	1.0	ug/L			10/23/12 19:54	1
Chloromethane	1.0	U	1.0	ug/L			10/23/12 19:54	1
2-Chloroethyl vinyl ether	2.0	U	2.0	ug/L			10/23/12 19:54	1
cis-1,3-Dichloropropene	1.0	U	1.0	ug/L			10/23/12 19:54	1
Dichlorobromomethane	1.0	U	1.0	ug/L			10/23/12 19:54	1
Ethylbenzene	1.0	U	1.0	ug/L			10/23/12 19:54	1
1,2-Dichlorobenzene	1.0	U	1.0	ug/L			10/23/12 19:54	1
Tetrachloroethene	1.0	U	1.0	ug/L			10/23/12 19:54	1
1,3-Dichlorobenzene	1.0	U	1.0	ug/L			10/23/12 19:54	1
Toluene	1.0	U	1.0	ug/L			10/23/12 19:54	1
1,4-Dichlorobenzene	1.0	U	1.0	ug/L			10/23/12 19:54	1
trans-1,3-Dichloropropene	1.0	U	1.0	ug/L			10/23/12 19:54	1
Trichloroethene	1.0	U	1.0	ug/L			10/23/12 19:54	1
Vinyl chloride	1.0	U	1.0	ug/L			10/23/12 19:54	1
Methylene Chloride	1.88		1.0	ug/L			10/23/12 19:54	1
trans-1,2-Dichloroethene	1.0	U	1.0	ug/L			10/23/12 19:54	1
1,3-Dichloropropene, Total	1.0	U	1.0	ug/L			10/23/12 19:54	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		81 - 112		10/23/12 19:54	1
1,2-Dichloroethane-d4 (Surr)	98		80 - 125		10/23/12 19:54	1
Toluene-d8 (Surr)	102		84 - 110		10/23/12 19:54	1

Lab Sample ID: MB 240-62480/4

Matrix: Water

Analysis Batch: 62480

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			10/23/12 18:43	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	ug/L			10/23/12 18:43	1
1,1,2-Trichloroethane	1.0	U	1.0	ug/L			10/23/12 18:43	1
Xylenes, Total	1.0	U	1.0	ug/L			10/23/12 18:43	1

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-16553-1

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

Lab Sample ID: MB 240-62480/4

Matrix: Water

Analysis Batch: 62480

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	1.0	U	1.0	ug/L			10/23/12 18:43	1
1,1-Dichloroethene	1.0	U	1.0	ug/L			10/23/12 18:43	1
1,2-Dichloroethane	1.0	U	1.0	ug/L			10/23/12 18:43	1
1,2-Dichloropropane	1.0	U	1.0	ug/L			10/23/12 18:43	1
Acrolein	10	U	10	ug/L			10/23/12 18:43	1
Acrylonitrile	10	U	10	ug/L			10/23/12 18:43	1
Benzene	1.0	U	1.0	ug/L			10/23/12 18:43	1
Bromoform	1.0	U	1.0	ug/L			10/23/12 18:43	1
Bromomethane	1.0	U	1.0	ug/L			10/23/12 18:43	1
Carbon tetrachloride	1.0	U	1.0	ug/L			10/23/12 18:43	1
Chlorobenzene	1.0	U	1.0	ug/L			10/23/12 18:43	1
Chlorodibromomethane	1.0	U	1.0	ug/L			10/23/12 18:43	1
Chloroethane	1.0	U	1.0	ug/L			10/23/12 18:43	1
Chloroform	1.0	U	1.0	ug/L			10/23/12 18:43	1
Chloromethane	1.0	U	1.0	ug/L			10/23/12 18:43	1
2-Chloroethyl vinyl ether	2.0	U	2.0	ug/L			10/23/12 18:43	1
cis-1,3-Dichloropropene	1.0	U	1.0	ug/L			10/23/12 18:43	1
Dichlorobromomethane	1.0	U	1.0	ug/L			10/23/12 18:43	1
Ethylbenzene	1.0	U	1.0	ug/L			10/23/12 18:43	1
1,2-Dichlorobenzene	1.0	U	1.0	ug/L			10/23/12 18:43	1
Tetrachloroethene	1.0	U	1.0	ug/L			10/23/12 18:43	1
1,3-Dichlorobenzene	1.0	U	1.0	ug/L			10/23/12 18:43	1
Toluene	1.0	U	1.0	ug/L			10/23/12 18:43	1
1,4-Dichlorobenzene	1.0	U	1.0	ug/L			10/23/12 18:43	1
trans-1,3-Dichloropropene	1.0	U	1.0	ug/L			10/23/12 18:43	1
Trichloroethene	1.0	U	1.0	ug/L			10/23/12 18:43	1
Vinyl chloride	1.0	U	1.0	ug/L			10/23/12 18:43	1
Methylene Chloride	6.72		1.0	ug/L			10/23/12 18:43	1
trans-1,2-Dichloroethene	1.0	U	1.0	ug/L			10/23/12 18:43	1
1,3-Dichloropropene, Total	1.0	U	1.0	ug/L			10/23/12 18:43	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		81 - 112		10/23/12 18:43	1
1,2-Dichloroethane-d4 (Surr)	96		80 - 125		10/23/12 18:43	1
Toluene-d8 (Surr)	99		84 - 110		10/23/12 18:43	1

Lab Sample ID: LCS 240-62480/5

Matrix: Water

Analysis Batch: 62480

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Trichloroethane	20.0	20.5		ug/L		102	52 - 150
1,1-Dichloroethane	20.0	17.1		ug/L		86	59 - 155
1,1-Dichloroethene	20.0	22.3		ug/L		112	10 - 234
1,2-Dichloroethane	20.0	20.0		ug/L		100	49 - 155
1,2-Dichloropropane	20.0	21.7		ug/L		108	10 - 210
Benzene	20.0	21.0		ug/L		105	37 - 151
Bromoform	20.0	23.6		ug/L		118	45 - 169
Bromomethane	20.0	16.4		ug/L		82	10 - 242

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-16553-1

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

Lab Sample ID: LCS 240-62480/5

Matrix: Water

Analysis Batch: 62480

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Carbon tetrachloride	20.0	28.4	*	ug/L		142	70 - 140
Chlorobenzene	20.0	20.1		ug/L		100	37 - 160
Chlorodibromomethane	20.0	23.0		ug/L		115	53 - 149
Chloroethane	20.0	18.3		ug/L		91	14 - 230
Chloroform	20.0	19.6		ug/L		98	51 - 138
Chloromethane	20.0	20.1		ug/L		101	10 - 273
2-Chloroethyl vinyl ether	20.0	20.1		ug/L		100	10 - 305
cis-1,3-Dichloropropene	20.0	21.0		ug/L		105	10 - 227
Dichlorobromomethane	20.0	21.5		ug/L		108	35 - 155
Ethylbenzene	20.0	20.1		ug/L		100	37 - 162
1,2-Dichlorobenzene	20.0	19.4		ug/L		97	18 - 190
Tetrachloroethene	20.0	19.4		ug/L		97	64 - 148
1,3-Dichlorobenzene	20.0	19.9		ug/L		100	59 - 156
Toluene	20.0	20.3		ug/L		101	47 - 150
1,4-Dichlorobenzene	20.0	18.6		ug/L		93	18 - 190
trans-1,3-Dichloropropene	20.0	22.3		ug/L		111	17 - 183
Trichloroethene	20.0	22.1		ug/L		111	71 - 157
Vinyl chloride	20.0	21.0		ug/L		105	10 - 251
Methylene Chloride	20.0	22.7		ug/L		113	10 - 221
trans-1,2-Dichloroethene	20.0	21.7		ug/L		108	54 - 156

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		81 - 112
1,2-Dichloroethane-d4 (Surr)	97		80 - 125
Toluene-d8 (Surr)	101		84 - 110

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

Lab Sample ID: MB 240-62043/2-A

Matrix: Water

Analysis Batch: 62192

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 62043

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	NEG			ng/uL		10/19/12 12:18	10/22/12 10:28	1

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

Lab Sample ID: MB 240-62042/2-A

Matrix: Water

Analysis Batch: 62121

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 62042

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
2,4,6-Trichlorophenol	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
2,4-Dichlorophenol	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
2,4-Dimethylphenol	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
2,4-Dinitrophenol	50	U	50	ug/L		10/19/12 12:17	10/20/12 15:42	1
2,4-Dinitrotoluene	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
2,6-Dinitrotoluene	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-16553-1

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

Lab Sample ID: MB 240-62042/2-A

Matrix: Water

Analysis Batch: 62121

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 62042

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
2-Chlorophenol	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
2-Nitrophenol	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
3,3'-Dichlorobenzidine	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
4,6-Dinitro-2-methylphenol	50	U	50	ug/L		10/19/12 12:17	10/20/12 15:42	1
4-Bromophenyl phenyl ether	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
4-Chlorophenyl phenyl ether	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
4-Nitrophenol	50	U	50	ug/L		10/19/12 12:17	10/20/12 15:42	1
Acenaphthene	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
Acenaphthylene	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
Anthracene	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
Benzidine	100	U	100	ug/L		10/19/12 12:17	10/20/12 15:42	1
Benzo[a]anthracene	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
Benzo[a]pyrene	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
Benzo[b]fluoranthene	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
Benzo[g,h,i]perylene	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
Benzo[k]fluoranthene	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
Bis(2-chloroethoxy)methane	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
Bis(2-chloroethyl)ether	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
Bis(2-ethylhexyl) phthalate	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
bis (2-chloroisopropyl) ether	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
Butyl benzyl phthalate	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
Chrysene	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
Dibenz(a,h)anthracene	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
Diethyl phthalate	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
Dimethyl phthalate	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
Di-n-butyl phthalate	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
Di-n-octyl phthalate	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
Fluoranthene	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
Fluorene	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
Hexachlorobenzene	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
Hexachlorobutadiene	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
Hexachlorocyclopentadiene	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
Hexachloroethane	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
Indeno[1,2,3-cd]pyrene	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
Isophorone	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
Naphthalene	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
Nitrobenzene	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
N-Nitrosodimethylamine	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
N-Nitrosodi-n-propylamine	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
N-Nitrosodiphenylamine	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
4-Chloro-3-methylphenol	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
Pentachlorophenol	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
Phenanthrene	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
Phenol	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
Pyrene	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1
1,2-Diphenylhydrazine	10	U	10	ug/L		10/19/12 12:17	10/20/12 15:42	1

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-16553-1

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

Lab Sample ID: MB 240-62042/2-A

Matrix: Water

Analysis Batch: 62121

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 62042

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	63		10 - 135	10/19/12 12:17	10/20/12 15:42	1
2,4,6-Tribromophenol	70		10 - 142	10/19/12 12:17	10/20/12 15:42	1
Nitrobenzene-d5	69		44 - 110	10/19/12 12:17	10/20/12 15:42	1
Phenol-d5	50		10 - 132	10/19/12 12:17	10/20/12 15:42	1
Terphenyl-d14	78		24 - 135	10/19/12 12:17	10/20/12 15:42	1
2-Fluorobiphenyl (Surr)	66		38 - 110	10/19/12 12:17	10/20/12 15:42	1

Lab Sample ID: LCS 240-62042/3-A

Matrix: Water

Analysis Batch: 62121

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 62042

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	20.0	15.2		ug/L		76	44 - 142
2,4-Dichlorophenol	20.0	17.5		ug/L		88	39 - 135
2,4-Dimethylphenol	20.0	15.3		ug/L		77	32 - 119
2,4-Dinitrophenol	20.0	50	U	ug/L		51	0 - 191
2,4-Dinitrotoluene	20.0	18.4		ug/L		92	39 - 139
2,6-Dinitrotoluene	20.0	18.0		ug/L		90	50 - 158
2-Chloronaphthalene	20.0	16.8		ug/L		84	60 - 118
2-Chlorophenol	20.0	18.2		ug/L		91	23 - 134
2-Nitrophenol	20.0	18.0		ug/L		90	29 - 182
3,3'-Dichlorobenzidine	20.0	10	U	ug/L		46	0 - 262
4,6-Dinitro-2-methylphenol	20.0	50	U	ug/L		85	0 - 181
4-Bromophenyl phenyl ether	20.0	16.4		ug/L		82	53 - 127
4-Chlorophenyl phenyl ether	20.0	16.5		ug/L		83	25 - 158
4-Nitrophenol	20.0	50	U	ug/L		72	0 - 132
Acenaphthene	20.0	16.3		ug/L		81	47 - 145
Acenaphthylene	20.0	16.5		ug/L		83	33 - 145
Anthracene	20.0	16.6		ug/L		83	27 - 133
Benzo[a]anthracene	20.0	15.9		ug/L		80	33 - 143
Benzo[a]pyrene	20.0	13.9		ug/L		70	17 - 163
Benzo[b]fluoranthene	20.0	14.7		ug/L		73	24 - 159
Benzo[g,h,i]perylene	20.0	15.7		ug/L		79	0 - 219
Benzo[k]fluoranthene	20.0	15.4		ug/L		77	11 - 162
Bis(2-chloroethoxy)methane	20.0	17.5		ug/L		88	33 - 184
Bis(2-chloroethyl)ether	20.0	18.4		ug/L		92	12 - 158
Bis(2-ethylhexyl) phthalate	20.0	16.7		ug/L		84	8 - 158
Butyl benzyl phthalate	20.0	15.6		ug/L		78	0 - 152
Chrysene	20.0	16.5		ug/L		83	17 - 168
Dibenz(a,h)anthracene	20.0	15.9		ug/L		80	0 - 227
Diethyl phthalate	20.0	16.9		ug/L		84	0 - 114
Dimethyl phthalate	20.0	15.5		ug/L		77	0 - 112
Di-n-butyl phthalate	20.0	17.2		ug/L		86	1 - 118
Di-n-octyl phthalate	20.0	15.9		ug/L		80	4 - 146
Fluoranthene	20.0	17.3		ug/L		87	26 - 137
Fluorene	20.0	16.7		ug/L		83	59 - 121
Hexachlorobenzene	20.0	16.0		ug/L		80	0 - 152
Hexachlorobutadiene	20.0	15.3		ug/L		76	24 - 116
Hexachloroethane	20.0	16.3		ug/L		81	40 - 113

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-16553-1

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

Lab Sample ID: LCS 240-62042/3-A

Matrix: Water

Analysis Batch: 62121

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 62042

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Indeno[1,2,3-cd]pyrene	20.0	15.9		ug/L		79	0 - 171
Isophorone	20.0	18.9		ug/L		94	21 - 196
Naphthalene	20.0	16.8		ug/L		84	21 - 133
Nitrobenzene	20.0	17.8		ug/L		89	35 - 180
N-Nitrosodi-n-propylamine	20.0	20.7		ug/L		103	0 - 230
4-Chloro-3-methylphenol	20.0	17.4		ug/L		87	22 - 147
Pentachlorophenol	20.0	10	U	ug/L		33	14 - 176
Phenanthrene	20.0	17.4		ug/L		87	54 - 120
Phenol	20.0	13.4		ug/L		67	5 - 112
Pyrene	20.0	16.0		ug/L		80	52 - 115

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorophenol	78		10 - 135
2,4,6-Tribromophenol	82		10 - 142
Nitrobenzene-d5	82		44 - 110
Phenol-d5	68		10 - 132
Terphenyl-d14	88		24 - 135
2-Fluorobiphenyl (Surr)	80		38 - 110

Method: 608 - Organochlorine Pesticides in Water

Lab Sample ID: MB 240-62034/2-A

Matrix: Water

Analysis Batch: 62715

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 62034

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	0.050	U	0.050	ug/L		10/19/12 12:01	10/25/12 23:02	1
alpha-BHC	0.050	U	0.050	ug/L		10/19/12 12:01	10/25/12 23:02	1
beta-BHC	0.050	U	0.050	ug/L		10/19/12 12:01	10/25/12 23:02	1
delta-BHC	0.050	U	0.050	ug/L		10/19/12 12:01	10/25/12 23:02	1
gamma-BHC (Lindane)	0.050	U	0.050	ug/L		10/19/12 12:01	10/25/12 23:02	1
Chlordane (technical)	0.50	U	0.50	ug/L		10/19/12 12:01	10/25/12 23:02	1
Chlordane (technical) Peak 1	0.50	U	0.50	ug/L		10/19/12 12:01	10/25/12 23:02	1
Chlordane (technical) Peak 2	0.50	U	0.50	ug/L		10/19/12 12:01	10/25/12 23:02	1
Chlordane (technical) Peak 3	0.50	U	0.50	ug/L		10/19/12 12:01	10/25/12 23:02	1
Chlordane (technical) Peak 4	0.50	U	0.50	ug/L		10/19/12 12:01	10/25/12 23:02	1
4,4'-DDD	0.050	U	0.050	ug/L		10/19/12 12:01	10/25/12 23:02	1
4,4'-DDE	0.050	U	0.050	ug/L		10/19/12 12:01	10/25/12 23:02	1
4,4'-DDT	0.050	U	0.050	ug/L		10/19/12 12:01	10/25/12 23:02	1
Dieldrin	0.050	U	0.050	ug/L		10/19/12 12:01	10/25/12 23:02	1
Endosulfan I	0.050	U	0.050	ug/L		10/19/12 12:01	10/25/12 23:02	1
Endosulfan II	0.050	U	0.050	ug/L		10/19/12 12:01	10/25/12 23:02	1
Endosulfan sulfate	0.050	U	0.050	ug/L		10/19/12 12:01	10/25/12 23:02	1
Endrin	0.050	U	0.050	ug/L		10/19/12 12:01	10/25/12 23:02	1
Endrin aldehyde	0.050	U	0.050	ug/L		10/19/12 12:01	10/25/12 23:02	1
Heptachlor	0.050	U	0.050	ug/L		10/19/12 12:01	10/25/12 23:02	1
Heptachlor epoxide	0.050	U	0.050	ug/L		10/19/12 12:01	10/25/12 23:02	1
Toxaphene	2.0	U	2.0	ug/L		10/19/12 12:01	10/25/12 23:02	1
Toxaphene Peak 1	2.0	U	2.0	ug/L		10/19/12 12:01	10/25/12 23:02	1

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-16553-1

Method: 608 - Organochlorine Pesticides in Water (Continued)

Lab Sample ID: MB 240-62034/2-A

Matrix: Water

Analysis Batch: 62715

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 62034

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene Peak 2	2.0	U	2.0	ug/L		10/19/12 12:01	10/25/12 23:02	1
Toxaphene Peak 3	2.0	U	2.0	ug/L		10/19/12 12:01	10/25/12 23:02	1
Toxaphene Peak 4	2.0	U	2.0	ug/L		10/19/12 12:01	10/25/12 23:02	1
Toxaphene Peak 5	2.0	U	2.0	ug/L		10/19/12 12:01	10/25/12 23:02	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	87		10 - 151	10/19/12 12:01	10/25/12 23:02	1
Tetrachloro-m-xylene	89		10 - 151	10/19/12 12:01	10/25/12 23:02	1

Lab Sample ID: LCS 240-62034/3-A

Matrix: Water

Analysis Batch: 62715

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 62034

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aldrin	0.500	0.449		ug/L		90	42 - 122
alpha-BHC	0.500	0.456		ug/L		91	37 - 134
beta-BHC	0.500	0.452		ug/L		90	17 - 147
delta-BHC	0.500	0.476		ug/L		95	19 - 140
gamma-BHC (Lindane)	0.500	0.458		ug/L		92	32 - 127
4,4'-DDD	0.500	0.469		ug/L		94	31 - 141
4,4'-DDE	0.500	0.469		ug/L		94	30 - 145
4,4'-DDT	0.500	0.532		ug/L		106	25 - 160
Dieldrin	0.500	0.472		ug/L		94	36 - 146
Endosulfan I	0.500	0.372		ug/L		74	45 - 153
Endosulfan II	0.500	0.398		ug/L		80	10 - 202
Endosulfan sulfate	0.500	0.477		ug/L		95	26 - 144
Endrin	0.500	0.475		ug/L		95	30 - 147
Heptachlor	0.500	0.453		ug/L		91	34 - 111
Heptachlor epoxide	0.500	0.445		ug/L		89	37 - 142

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	40		10 - 151
Tetrachloro-m-xylene	90		10 - 151

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

Lab Sample ID: MB 240-62041/4-A

Matrix: Water

Analysis Batch: 62159

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 62041

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	ug/L		10/19/12 12:14	10/22/12 09:42	1
Aroclor-1221	0.10	U	0.10	ug/L		10/19/12 12:14	10/22/12 09:42	1
Aroclor-1232	0.10	U	0.10	ug/L		10/19/12 12:14	10/22/12 09:42	1
Aroclor-1242	0.10	U	0.10	ug/L		10/19/12 12:14	10/22/12 09:42	1
Aroclor-1248	0.10	U	0.10	ug/L		10/19/12 12:14	10/22/12 09:42	1
Aroclor-1254	0.10	U	0.10	ug/L		10/19/12 12:14	10/22/12 09:42	1
Aroclor-1260	0.10	U	0.10	ug/L		10/19/12 12:14	10/22/12 09:42	1

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-16553-1

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

Lab Sample ID: MB 240-62041/4-A

Matrix: Water

Analysis Batch: 62159

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 62041

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	97		10 - 114	10/19/12 12:14	10/22/12 09:42	1
Tetrachloro-m-xylene	78		15 - 131	10/19/12 12:14	10/22/12 09:42	1

Lab Sample ID: LCS 240-62041/5-A

Matrix: Water

Analysis Batch: 62159

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 62041

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	2.50	2.10		ug/L		84	50 - 114
Aroclor-1260	2.50	2.37		ug/L		95	8 - 127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	102		10 - 114
Tetrachloro-m-xylene	73		15 - 131

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 240-63211/1-A

Matrix: Water

Analysis Batch: 63261

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 63211

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	5.0	U	5.0	mg/L		10/30/12 09:31	10/30/12 12:54	1

Lab Sample ID: LCS 240-63211/2-A

Matrix: Water

Analysis Batch: 63261

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 63211

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM	40.0	36.5		mg/L		91	78 - 114

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

Lab Sample ID: MB 240-62413/1

Matrix: Water

Analysis Batch: 62413

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			10/23/12 10:47	1

Lab Sample ID: LCS 240-62413/2

Matrix: Water

Analysis Batch: 62413

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	31.9	34.0		mg/L		107	73 - 113

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-16553-1

Method: SM 3500 CR D - Chromium, Hexavalent

Lab Sample ID: MB 240-61813/3

Matrix: Water

Analysis Batch: 61813

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			10/18/12 10:14	1

Lab Sample ID: LCS 240-61813/4

Matrix: Water

Analysis Batch: 61813

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-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-16553-1

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)
240-16553-1	WT-12607-101712-EE-001	94	99	99
LCS 240-62480/5	Lab Control Sample	104	97	101
MB 240-62480/32	Method Blank	97	98	102
MB 240-62480/4	Method Blank	95	96	99

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)
240-16553-1	WT-12607-101712-EE-001	46	70	63	34	61	55
LCS 240-62042/3-A	Lab Control Sample	78	82	82	68	88	80
MB 240-62042/2-A	Method Blank	63	70	69	50	78	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)
240-16553-1	WT-12607-101712-EE-001	37	36	78	62
LCS 240-62034/3-A	Lab Control Sample	40	42	90	80
MB 240-62034/2-A	Method Blank	87	82	89	77

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)
240-16553-1	WT-12607-101712-EE-001	56	70
LCS 240-62041/5-A	Lab Control Sample	102	73
MB 240-62041/4-A	Method Blank	97	78

Surrogate Summary

Client: Conestoga-Rovers & Associates, Inc.

Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-16553-1

Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

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Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-16553-1

Client Sample ID: WT-12607-101712-EE-001

Lab Sample ID: 240-16553-1

Date Collected: 10/17/12 15:30

Matrix: Water

Date Received: 10/18/12 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	62480	10/23/12 19:05	TL	TAL NC
Total/NA	Prep	625			62042	10/19/12 12:17	AC	TAL NC
Total/NA	Analysis	625		1	62121	10/20/12 23:14	MU	TAL NC
Total/NA	Prep	3510C			62043	10/19/12 12:18	AC	TAL NC
Total/NA	Analysis	625		1	62192	10/22/12 10:59	MU	TAL NC
Total/NA	Prep	3510C			62041	10/19/12 12:14	AC	TAL NC
Total/NA	Analysis	608		1	62159	10/22/12 09:26	LH	TAL NC
Total/NA	Prep	608			62034	10/19/12 12:01	AC	TAL NC
Total/NA	Analysis	608		1	62715	10/25/12 22:41	CV	TAL NC
Total/NA	Analysis	SM 3500 CR D		1	61813	10/18/12 10:46	BW	TAL NC
Total/NA	Analysis	SM 2540D		1	62413	10/23/12 10:47	AM	TAL NC
Total/NA	Prep	1664A			63211	10/30/12 09:31	AM	TAL NC
Total/NA	Analysis	1664A		1	63261	10/30/12 12:54	AM	TAL NC

Laboratory References:

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

Certification Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-16553-1

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	NELAC	9	01144CA	06-30-13
Connecticut	State Program	1	PH-0590	12-31-13
Florida	NELAC	4	E87225	06-30-13
Georgia	State Program	4	N/A	06-30-13
Illinois	NELAC	5	200004	07-31-13
Kansas	NELAC	7	E-10336	01-31-13
Kentucky	State Program	4	58	11-16-12
L-A-B	DoD ELAP		L2315	02-28-13
Minnesota	NELAC	5	039-999-348	12-31-12
Nevada	State Program	9	OH-000482008A	07-31-13
New Jersey	NELAC	2	OH001	06-30-13
New York	NELAC	2	10975	04-01-13
Ohio VAP	State Program	5	CL0024	01-19-14
Pennsylvania	NELAC	3	68-00340	08-31-13
Texas	NELAC	6		08-03-13
USDA	Federal		P330-11-00328	08-26-14
Virginia	NELAC	3	460175	09-14-13
Washington	State Program	10	C971	01-12-13
West Virginia DEP	State Program	3	210	12-31-12
Wisconsin	State Program	5	999518190	08-31-13



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-09927

PAGE 1 OF 1

(See Reverse Side for Instructions)

Project No/Phase/Task Code: 12607-T01-005		Laboratory Name: Test America		Lab Location: N. Canton, OH		SSOW ID: 12607-T01-005	
Project Name: RACER - GWTP Livonia		Lab Contact: Denise Hecker		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 Engren		Matrix Code		Other:		Date Shipped:	
Item		DATE TIME (mm/dd/yyyy)		Unpreserved		MS/MSD Request	
1		WT-12607-10170-BE-001 10/17/12 1530		Grab (G) or Comp (C)		COMMENTS/SPECIAL INSTRUCTIONS:	
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TAT Required in business days (use separate COCs for different TATs):
☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☐ 2 Week ☐ Other: STD

Notes/Special Requirements:

RELIQUISHED BY: Erik Engren

DATE: 10/17/12

COMPANY: CRA

RECEIVED BY: Gary Burns

DATE: 10/18/12

COMPANY: TA

1. Erik Engren

2.

3.

10/31/2012

10/18/12 0920

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 # : 16553

Client CRA Site Name Racer-GWTP By: Denny Burns
Cooler Received on 10/18/12 Opened on 10/18/12 (Signature)
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# 1 (CF 0°C) Observed Sample Temp. _____ °C Corrected Sample Temp. _____ °C
IR GUN# 4G (CF -1°C) Observed Sample Temp. _____ °C Corrected Sample Temp. _____ °C
IR GUN# 5G (CF -1°C) Observed Sample Temp. 4.6 °C Corrected Sample Temp. 3.6 °C
IR GUN# 8 (CF 0°C) Observed Sample Temp. _____ °C Corrected Sample Temp. _____ °C

Multiple
on Back

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
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

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)

Age Group	Percentage
1	10%
2	10%
3	10%
4	10%
5	10%
6	10%
7	10%
8	10%
9	10%
10	10%
11	10%
12	10%
13	10%
14	10%
15	10%

Age Group	Percentage
1	1%
2	1%
3	2%
4	2%
5	3%
6	4%
7	5%
8	6%
9	7%
10	8%
11	9%
12	10%
13	11%
14	12%
15	13%

Age Group	Percentage
1	10%
2	10%
3	10%
4	10%
5	10%
6	10%
7	10%
8	10%
9	10%
10	10%
11	10%
12	10%
13	10%
14	10%
15	10%

Login Sample Receipt Checklist

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 240-16553-1

Login Number: 16553

List Source: TestAmerica Canton

List Number: 1

Creator: Maddux, Ann

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

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: 240-17630-1

Client Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

For:

Conestoga-Rovers & Associates, Inc.

14496 Sheldon Road, Suite 200

Plymouth, Michigan 48170

Attn: Mr. Paul Wiseman



Authorized for release by:

11/30/2012 2:32:57 PM

Denise Heckler

Project Manager II

denise.heckler@testamericainc.com

LINKS

Review your project
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-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-17630-1

Job ID: 240-17630-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Conestoga-Rovers & Associates, Inc.

Project: 12607-T01-005, RACER Livonia/Eckles Rd

Report Number: 240-17630-1

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 North 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 11/15/2012; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.2 C.

POLYCHLORINATED BIPHENYLS (PCBS)

Sample WT-12607-111412-EE-001 (240-17630-1) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA Method 608. The samples were prepared on 11/27/2012 and analyzed on 11/28/2012.

No difficulties were encountered during the PCBs analysis.

All quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICP)

Sample WT-12607-111412-EE-001 (240-17630-1) was analyzed for total recoverable metals (ICP) in accordance with EPA Method 200.7. The samples were prepared on 11/19/2012 and analyzed on 11/21/2012.

No difficulties were encountered during the metals analysis.

All quality control parameters were within the acceptance limits.

Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-17630-1

Job ID: 240-17630-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

MERCURY

Sample WT-12607-111412-EE-001 (240-17630-1) was analyzed for mercury in accordance with EPA Method 245.1. The samples were prepared on 11/20/2012 and analyzed on 11/27/2012.

No difficulties were encountered during the mercury analysis.

All quality control parameters were within the acceptance limits.

HEM

Sample WT-12607-111412-EE-001 (240-17630-1) was analyzed for HEM in accordance with EPA Method 1664A. The samples were prepared and analyzed on 11/28/2012.

No other difficulties were encountered during the HEM analysis.

All other quality control parameters were within the acceptance limits.

TOTAL SUSPENDED SOLIDS

Sample WT-12607-111412-EE-001 (240-17630-1) was analyzed for total suspended solids in accordance with SM 2540D. The samples were analyzed on 11/20/2012.

No difficulties were encountered during the TSS analysis.

All quality control parameters were within the acceptance limits.

HEXAVALENT CHROMIUM

Sample WT-12607-111412-EE-001 (240-17630-1) was analyzed for hexavalent chromium in accordance with SM 3500 CR D. The samples were analyzed on 11/15/2012.

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-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-17630-1

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.
☼	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)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
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-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-17630-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-17630-1	WT-12607-111412-EE-001	Water	11/14/12 12:00	11/15/12 09:15

Detection Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-17630-1

Client Sample ID: WT-12607-111412-EE-001

Lab Sample ID: 240-17630-1

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	0.052		0.010	mg/L	1		200.7 Rev 4.4	Recoverable Total
Cr (VI)	0.039		0.0050	mg/L	1		SM 3500 CR D	Recoverable Total/NA

Method Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-17630-1

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

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 NC = 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-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-17630-1

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

Client Sample ID: WT-12607-111412-EE-001

Date Collected: 11/14/12 12:00

Date Received: 11/15/12 09:15

Lab Sample ID: 240-17630-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	ug/L		11/27/12 11:49	11/28/12 09:35	1
Aroclor-1221	0.095	U	0.095	ug/L		11/27/12 11:49	11/28/12 09:35	1
Aroclor-1232	0.095	U	0.095	ug/L		11/27/12 11:49	11/28/12 09:35	1
Aroclor-1242	0.095	U	0.095	ug/L		11/27/12 11:49	11/28/12 09:35	1
Aroclor-1248	0.095	U	0.095	ug/L		11/27/12 11:49	11/28/12 09:35	1
Aroclor-1254	0.095	U	0.095	ug/L		11/27/12 11:49	11/28/12 09:35	1
Aroclor-1260	0.095	U	0.095	ug/L		11/27/12 11:49	11/28/12 09:35	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	70		10 - 114			11/27/12 11:49	11/28/12 09:35	1
Tetrachloro-m-xylene	86		15 - 131			11/27/12 11:49	11/28/12 09:35	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-17630-1

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

Client Sample ID: WT-12607-111412-EE-001

Date Collected: 11/14/12 12:00

Date Received: 11/15/12 09:15

Lab Sample ID: 240-17630-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.092		0.050	mg/L		11/19/12 08:14	11/21/12 17:26	1
Nickel	0.052		0.010	mg/L		11/19/12 08:14	11/21/12 17:26	1
Lead	0.050	U	0.050	mg/L		11/19/12 08:14	11/21/12 17:26	1
Zinc	0.020	U	0.020	mg/L		11/19/12 08:14	11/21/12 17:26	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-17630-1

Method: 245.1 - Mercury (CVAA)

Client Sample ID: WT-12607-111412-EE-001

Date Collected: 11/14/12 12:00

Date Received: 11/15/12 09:15

Lab Sample ID: 240-17630-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		11/20/12 15:30	11/27/12 14:31	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-17630-1

General Chemistry

Client Sample ID: WT-12607-111412-EE-001

Date Collected: 11/14/12 12:00

Date Received: 11/15/12 09:15

Lab Sample ID: 240-17630-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	4.7	U	4.7	mg/L		11/28/12 09:18	11/28/12 09:18	1
Total Suspended Solids	4.0	U	4.0	mg/L			11/20/12 09:50	1
Cr (VI)	0.039		0.0050	mg/L			11/15/12 11:36	1

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-17630-1

GC Semi VOA

Prep Batch: 66448

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-17630-1	WT-12607-111412-EE-001	Total/NA	Water	3510C	
LCS 240-66448/21-A	Lab Control Sample	Total/NA	Water	3510C	
MB 240-66448/20-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 66532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-17630-1	WT-12607-111412-EE-001	Total/NA	Water	608	66448
LCS 240-66448/21-A	Lab Control Sample	Total/NA	Water	608	66448
MB 240-66448/20-A	Method Blank	Total/NA	Water	608	66448

Metals

Prep Batch: 65521

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-17630-1	WT-12607-111412-EE-001	Total Recoverable	Water	200.7	
240-17630-1 MS	WT-12607-111412-EE-001	Total Recoverable	Water	200.7	
240-17630-1 MSD	WT-12607-111412-EE-001	Total Recoverable	Water	200.7	
LCS 240-65521/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
MB 240-65521/1-A	Method Blank	Total Recoverable	Water	200.7	

Prep Batch: 65713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-17630-1	WT-12607-111412-EE-001	Total/NA	Water	245.1	
LCS 240-65713/2-A	Lab Control Sample	Total/NA	Water	245.1	
MB 240-65713/1-A	Method Blank	Total/NA	Water	245.1	

Analysis Batch: 66021

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-65713/2-A	Lab Control Sample	Total/NA	Water	245.1	65713
MB 240-65713/1-A	Method Blank	Total/NA	Water	245.1	65713

Analysis Batch: 66034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-17630-1	WT-12607-111412-EE-001	Total Recoverable	Water	200.7 Rev 4.4	65521
240-17630-1 MS	WT-12607-111412-EE-001	Total Recoverable	Water	200.7 Rev 4.4	65521
240-17630-1 MSD	WT-12607-111412-EE-001	Total Recoverable	Water	200.7 Rev 4.4	65521
LCS 240-65521/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	65521
MB 240-65521/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	65521

Analysis Batch: 66485

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-17630-1	WT-12607-111412-EE-001	Total/NA	Water	245.1	65713

General Chemistry

Analysis Batch: 65215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-17630-1	WT-12607-111412-EE-001	Total/NA	Water	SM 3500 CR D	
LCS 240-65215/4	Lab Control Sample	Total/NA	Water	SM 3500 CR D	
MB 240-65215/3	Method Blank	Total/NA	Water	SM 3500 CR D	

TestAmerica Canton

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-17630-1

General Chemistry (Continued)

Analysis Batch: 65731

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-17630-1	WT-12607-111412-EE-001	Total/NA	Water	SM 2540D	
LCS 240-65731/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 240-65731/1	Method Blank	Total/NA	Water	SM 2540D	

Prep Batch: 66559

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-17630-1	WT-12607-111412-EE-001	Total/NA	Water	1664A	
LCS 240-66559/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 240-66559/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 66578

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-17630-1	WT-12607-111412-EE-001	Total/NA	Water	1664A	66559
LCS 240-66559/2-A	Lab Control Sample	Total/NA	Water	1664A	66559
MB 240-66559/1-A	Method Blank	Total/NA	Water	1664A	66559

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-17630-1

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

Lab Sample ID: MB 240-66448/20-A

Matrix: Water

Analysis Batch: 66532

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 66448

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	ug/L		11/27/12 11:49	11/28/12 11:20	1
Aroclor-1221	0.10	U	0.10	ug/L		11/27/12 11:49	11/28/12 11:20	1
Aroclor-1232	0.10	U	0.10	ug/L		11/27/12 11:49	11/28/12 11:20	1
Aroclor-1242	0.10	U	0.10	ug/L		11/27/12 11:49	11/28/12 11:20	1
Aroclor-1248	0.10	U	0.10	ug/L		11/27/12 11:49	11/28/12 11:20	1
Aroclor-1254	0.10	U	0.10	ug/L		11/27/12 11:49	11/28/12 11:20	1
Aroclor-1260	0.10	U	0.10	ug/L		11/27/12 11:49	11/28/12 11:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	62		10 - 114	11/27/12 11:49	11/28/12 11:20	1
Tetrachloro-m-xylene	79		15 - 131	11/27/12 11:49	11/28/12 11:20	1

Lab Sample ID: LCS 240-66448/21-A

Matrix: Water

Analysis Batch: 66532

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 66448

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	2.50	2.37		ug/L		95	50 - 114
Aroclor-1260	2.50	2.38		ug/L		95	8 - 127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	88		10 - 114
Tetrachloro-m-xylene	82		15 - 131

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 240-65521/1-A

Matrix: Water

Analysis Batch: 66034

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 65521

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.050	U	0.050	mg/L		11/19/12 08:14	11/21/12 17:18	1
Nickel	0.010	U	0.010	mg/L		11/19/12 08:14	11/21/12 17:18	1
Lead	0.050	U	0.050	mg/L		11/19/12 08:14	11/21/12 17:18	1
Zinc	0.020	U	0.020	mg/L		11/19/12 08:14	11/21/12 17:18	1

Lab Sample ID: LCS 240-65521/2-A

Matrix: Water

Analysis Batch: 66034

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 65521

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	0.200	0.183		mg/L		92	85 - 115
Nickel	0.500	0.459		mg/L		92	85 - 115
Lead	0.500	0.453		mg/L		91	85 - 115
Zinc	0.500	0.465		mg/L		93	85 - 115

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-17630-1

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

Lab Sample ID: 240-17630-1 MS

Matrix: Water

Analysis Batch: 66034

Client Sample ID: WT-12607-111412-EE-001

Prep Type: Total Recoverable

Prep Batch: 65521

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	0.092		0.200	0.293		mg/L		100	75 - 125
Nickel	0.052		0.500	0.556		mg/L		101	75 - 125
Lead	0.050	U	0.500	0.481		mg/L		96	75 - 125
Zinc	0.020	U	0.500	0.497		mg/L		99	75 - 125

Lab Sample ID: 240-17630-1 MSD

Matrix: Water

Analysis Batch: 66034

Client Sample ID: WT-12607-111412-EE-001

Prep Type: Total Recoverable

Prep Batch: 65521

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium	0.092		0.200	0.296		mg/L		102	75 - 125	1	20
Nickel	0.052		0.500	0.564		mg/L		102	75 - 125	1	20
Lead	0.050	U	0.500	0.487		mg/L		97	75 - 125	1	20
Zinc	0.020	U	0.500	0.503		mg/L		101	75 - 125	1	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 240-65713/1-A

Matrix: Water

Analysis Batch: 66021

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 65713

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		11/20/12 15:30	11/21/12 19:51	1

Lab Sample ID: LCS 240-65713/2-A

Matrix: Water

Analysis Batch: 66021

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 65713

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00500	0.00516		mg/L		103	85 - 115

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 240-66559/1-A

Matrix: Water

Analysis Batch: 66578

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 66559

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	5.0	U	5.0	mg/L		11/28/12 09:18	11/28/12 09:18	1

Lab Sample ID: LCS 240-66559/2-A

Matrix: Water

Analysis Batch: 66578

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 66559

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM	40.0	31.4		mg/L		78	78 - 114

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-17630-1

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

Lab Sample ID: MB 240-65731/1

Matrix: Water

Analysis Batch: 65731

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			11/20/12 09:50	1

Lab Sample ID: LCS 240-65731/2

Matrix: Water

Analysis Batch: 65731

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	58.6	55.0		mg/L		94	73 - 113

Method: SM 3500 CR D - Chromium, Hexavalent

Lab Sample ID: MB 240-65215/3

Matrix: Water

Analysis Batch: 65215

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			11/15/12 11:20	1

Lab Sample ID: LCS 240-65215/4

Matrix: Water

Analysis Batch: 65215

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	0.251		mg/L		100	80 - 118

TestAmerica Canton

Surrogate Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-17630-1

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)
240-17630-1	WT-12607-111412-EE-001	70	86
LCS 240-66448/21-A	Lab Control Sample	88	82
MB 240-66448/20-A	Method Blank	62	79

Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-17630-1

Client Sample ID: WT-12607-111412-EE-001

Lab Sample ID: 240-17630-1

Date Collected: 11/14/12 12:00

Matrix: Water

Date Received: 11/15/12 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			66448	11/27/12 11:49	LM	TAL NC
Total/NA	Analysis	608		1	66532	11/28/12 09:35	LH	TAL NC
Total Recoverable	Prep	200.7			65521	11/19/12 08:14	LM	TAL NC
Total Recoverable	Analysis	200.7 Rev 4.4		1	66034	11/21/12 17:26	RT	TAL NC
Total/NA	Prep	245.1			65713	11/20/12 15:30	LM	TAL NC
Total/NA	Analysis	245.1		1	66485	11/27/12 14:31	DH	TAL NC
Total/NA	Analysis	SM 3500 CR D		1	65215	11/15/12 11:36	CN	TAL NC
Total/NA	Analysis	SM 2540D		1	65731	11/20/12 09:50	AM	TAL NC
Total/NA	Analysis	1664A		1	66578	11/28/12 09:18	BW	TAL NC
Total/NA	Prep	1664A			66559	11/28/12 09:18	BW	TAL NC

Laboratory References:

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

Certification Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-17630-1

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	NELAC	9	01144CA	06-30-13
Connecticut	State Program	1	PH-0590	12-31-13
Florida	NELAC	4	E87225	06-30-13
Georgia	State Program	4	N/A	06-30-13
Illinois	NELAC	5	200004	07-31-13
Kansas	NELAC	7	E-10336	01-31-13
L-A-B	DoD ELAP		L2315	02-28-13
Minnesota	NELAC	5	039-999-348	12-31-12
Nevada	State Program	9	OH-000482008A	07-31-13
New Jersey	NELAC	2	OH001	06-30-13
New York	NELAC	2	10975	04-01-13
Ohio VAP	State Program	5	CL0024	01-19-14
Pennsylvania	NELAC	3	68-00340	08-31-13
Texas	NELAC	6		08-03-13
USDA	Federal		P330-11-00328	08-26-14
Virginia	NELAC	3	460175	09-14-13
Washington	State Program	10	C971	01-12-13
West Virginia DEP	State Program	3	210	12-31-12
Wisconsin	State Program	5	999518190	08-31-13



CONESTOGA-ROVERS
& ASSOCIATES

CHAIN OF CUSTODY RECORD

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Phone: (734) 453-5123

Fax: (734) 453-5201

COC NO. PL- 09928

PAGE 1 OF 1

(See Reverse Side for Instructions)

Project No/ Phase/Task Code: 12607-T01-005		Laboratory Name: Test America		Lab Location: N Canton, OH		SSOW ID: 12607-T01-005	
Project Name: RACER Livonia GWT		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		Matrix Code		Other:		Date Shipped:	
SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)		DATE (month/day/year)		TIME (hh:mm)		COMMENTS/SPECIAL INSTRUCTIONS:	
WT-12607-011412-EE-001		11/14/12		12:00		WT	
1		2		3		4	
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248		249		250		251	
249		250		251			

TestAmerica Canton Sample Receipt Form/Narrative

Login # : 17630

Client CRA Site Name _____ By: [Signature]
Cooler Received on 11-15-12 Opened on 11-15-12 (Signature)FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____TestAmerica Cooler # 241-2159 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# 1 (CF -2 °C) Observed Sample Temp. _____ °C Corrected Sample Temp. _____ °C

IR GUN# 4G (CF 0 °C) Observed Sample Temp. 2.2 °C Corrected Sample Temp. 2.2 °C

IR GUN# 5G (CF 0 °C) Observed Sample Temp. _____ °C Corrected Sample Temp. _____ °C

IR GUN# 8 (CF 0 °C) Observed Sample Temp. _____ °C Corrected Sample Temp. _____ °C

☐ Multiple
on Back2. 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 No3. Shippers' packing slip attached to the cooler(s)? Yes No4. Did custody papers accompany the sample(s)? Yes No5. Were the custody papers relinquished & signed in the appropriate place? Yes No6. Did all bottles arrive in good condition (Unbroken)? Yes No7. Could all bottle labels be reconciled with the COC? Yes No8. Were correct bottle(s) used for the test(s) indicated? Yes No9. Sufficient quantity received to perform indicated analyses? Yes No10. Were sample(s) at the correct pH upon receipt? Yes No NA11. Were VOAs on the COC? Yes No12. Were air bubbles >6 mm in any VOA vials? Yes No NA13. 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

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)

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: 240-18799-1

Client Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

For:

Conestoga-Rovers & Associates, Inc.

14496 Sheldon Road, Suite 200

Plymouth, Michigan 48170

Attn: Mr. Paul Wiseman



Authorized for release by:

1/3/2013 8:31:04 AM

Denise Heckler

Project Manager II

denise.heckler@testamericainc.com

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results through

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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-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-18799-1

Job ID: 240-18799-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Conestoga-Rovers & Associates, Inc.

Project: 12607-T01-005, RACER Livonia/Eckles Rd

Report Number: 240-18799-1

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 North 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 12/13/2012; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 4.9 C.

POLYCHLORINATED BIPHENYLS (PCBS)

Sample WT-12607-121212-EE-001 (240-18799-1) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA Method 608. The samples were prepared on 12/14/2012 and analyzed on 12/17/2012.

No difficulties were encountered during the PCBs analysis.

All quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICP)

Sample WT-12607-121212-EE-001 (240-18799-1) was analyzed for total recoverable metals (ICP) in accordance with EPA Method 200.7. The samples were prepared on 12/17/2012 and analyzed on 12/18/2012.

No difficulties were encountered during the metals analysis.

All quality control parameters were within the acceptance limits.

Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-18799-1

Job ID: 240-18799-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

MERCURY

Sample WT-12607-121212-EE-001 (240-18799-1) was analyzed for mercury in accordance with EPA Method 245.1. The samples were prepared on 12/18/2012 and analyzed on 12/19/2012.

No difficulties were encountered during the mercury analysis.

All quality control parameters were within the acceptance limits.

HEM

Sample WT-12607-121212-EE-001 (240-18799-1) was analyzed for HEM in accordance with EPA Method 1664A. The samples were prepared and analyzed on 01/02/2013.

No difficulties were encountered during the HEM analysis.

All quality control parameters were within the acceptance limits.

TOTAL SUSPENDED SOLIDS

Sample WT-12607-121212-EE-001 (240-18799-1) was analyzed for total suspended solids in accordance with SM 2540D. The samples were analyzed on 12/19/2012.

No difficulties were encountered during the TSS analysis.

All quality control parameters were within the acceptance limits.

HEXAVALENT CHROMIUM

Sample WT-12607-121212-EE-001 (240-18799-1) was analyzed for hexavalent chromium in accordance with SM 3500 CR D. The samples were analyzed past the method recommended 24 hour holding time on 12/13/2012.

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-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-18799-1

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
H	Sample was prepped or analyzed beyond the specified holding time
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.
☼	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)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
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-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-18799-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-18799-1	WT-12607-121212-EE-001	Water	12/12/12 15:50	12/13/12 09:15

Detection Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-18799-1

Client Sample ID: WT-12607-121212-EE-001

Lab Sample ID: 240-18799-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Nickel	0.082		0.010	mg/L	1		200.7 Rev 4.4	Total Recoverable

Method Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-18799-1

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

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 NC = 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-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-18799-1

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

Client Sample ID: WT-12607-121212-EE-001

Date Collected: 12/12/12 15:50

Date Received: 12/13/12 09:15

Lab Sample ID: 240-18799-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	ug/L		12/14/12 13:49	12/17/12 12:36	1
Aroclor-1221	0.095	U	0.095	ug/L		12/14/12 13:49	12/17/12 12:36	1
Aroclor-1232	0.095	U	0.095	ug/L		12/14/12 13:49	12/17/12 12:36	1
Aroclor-1242	0.095	U	0.095	ug/L		12/14/12 13:49	12/17/12 12:36	1
Aroclor-1248	0.095	U	0.095	ug/L		12/14/12 13:49	12/17/12 12:36	1
Aroclor-1254	0.095	U	0.095	ug/L		12/14/12 13:49	12/17/12 12:36	1
Aroclor-1260	0.095	U	0.095	ug/L		12/14/12 13:49	12/17/12 12:36	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	58		10 - 114			12/14/12 13:49	12/17/12 12:36	1
Tetrachloro-m-xylene	89		15 - 131			12/14/12 13:49	12/17/12 12:36	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-18799-1

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

Client Sample ID: WT-12607-121212-EE-001

Date Collected: 12/12/12 15:50

Date Received: 12/13/12 09:15

Lab Sample ID: 240-18799-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.050	U	0.050	mg/L		12/17/12 08:24	12/18/12 16:48	1
Nickel	0.082		0.010	mg/L		12/17/12 08:24	12/18/12 16:48	1
Lead	0.050	U	0.050	mg/L		12/17/12 08:24	12/18/12 16:48	1
Zinc	0.020	U	0.020	mg/L		12/17/12 08:24	12/18/12 16:48	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-18799-1

Method: 245.1 - Mercury (CVAA)

Client Sample ID: WT-12607-121212-EE-001

Date Collected: 12/12/12 15:50

Date Received: 12/13/12 09:15

Lab Sample ID: 240-18799-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		12/18/12 15:30	12/19/12 16:43	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-18799-1

General Chemistry

Client Sample ID: WT-12607-121212-EE-001

Date Collected: 12/12/12 15:50

Date Received: 12/13/12 09:15

Lab Sample ID: 240-18799-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	4.7	U	4.7	mg/L		01/02/13 08:41	01/02/13 08:41	1
Total Suspended Solids	4.0	U	4.0	mg/L			12/19/12 10:36	1
Cr (VI)	0.0050	U H	0.0050	mg/L			12/13/12 18:16	1

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-18799-1

GC Semi VOA

Prep Batch: 68790

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-18799-1	WT-12607-121212-EE-001	Total/NA	Water	3510C	
LCS 240-68790/12-A	Lab Control Sample	Total/NA	Water	3510C	
MB 240-68790/11-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 68918

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-18799-1	WT-12607-121212-EE-001	Total/NA	Water	608	68790
LCS 240-68790/12-A	Lab Control Sample	Total/NA	Water	608	68790
MB 240-68790/11-A	Method Blank	Total/NA	Water	608	68790

Metals

Prep Batch: 68930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-18799-1	WT-12607-121212-EE-001	Total Recoverable	Water	200.7	
LCS 240-68930/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
MB 240-68930/1-A	Method Blank	Total Recoverable	Water	200.7	

Prep Batch: 69134

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-18799-1	WT-12607-121212-EE-001	Total/NA	Water	245.1	
LCS 240-69134/2-A	Lab Control Sample	Total/NA	Water	245.1	
MB 240-69134/1-A	Method Blank	Total/NA	Water	245.1	

Analysis Batch: 69318

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-18799-1	WT-12607-121212-EE-001	Total Recoverable	Water	200.7 Rev 4.4	68930
LCS 240-68930/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	68930
MB 240-68930/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	68930

Analysis Batch: 69532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-18799-1	WT-12607-121212-EE-001	Total/NA	Water	245.1	69134
LCS 240-69134/2-A	Lab Control Sample	Total/NA	Water	245.1	69134
MB 240-69134/1-A	Method Blank	Total/NA	Water	245.1	69134

General Chemistry

Analysis Batch: 68494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-18799-1	WT-12607-121212-EE-001	Total/NA	Water	SM 3500 CR D	
LCS 240-68494/33	Lab Control Sample	Total/NA	Water	SM 3500 CR D	
MB 240-68494/3	Method Blank	Total/NA	Water	SM 3500 CR D	
MB 240-68494/39	Method Blank	Total/NA	Water	SM 3500 CR D	

Analysis Batch: 69392

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-18799-1	WT-12607-121212-EE-001	Total/NA	Water	SM 2540D	
LCS 240-69392/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 240-69392/1	Method Blank	Total/NA	Water	SM 2540D	

TestAmerica Canton

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-18799-1

General Chemistry (Continued)

Prep Batch: 70827

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-18799-1	WT-12607-121212-EE-001	Total/NA	Water	1664A	
240-18799-1 MS	WT-12607-121212-EE-001	Total/NA	Water	1664A	
LCS 240-70827/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 240-70827/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 70827

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-18799-1	WT-12607-121212-EE-001	Total/NA	Water	1664A	70827
240-18799-1 MS	WT-12607-121212-EE-001	Total/NA	Water	1664A	70827
LCS 240-70827/2-A	Lab Control Sample	Total/NA	Water	1664A	70827
MB 240-70827/1-A	Method Blank	Total/NA	Water	1664A	70827

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-18799-1

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

Lab Sample ID: MB 240-68790/11-A

Matrix: Water

Analysis Batch: 68918

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 68790

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	ug/L		12/14/12 13:49	12/17/12 11:33	1
Aroclor-1221	0.10	U	0.10	ug/L		12/14/12 13:49	12/17/12 11:33	1
Aroclor-1232	0.10	U	0.10	ug/L		12/14/12 13:49	12/17/12 11:33	1
Aroclor-1242	0.10	U	0.10	ug/L		12/14/12 13:49	12/17/12 11:33	1
Aroclor-1248	0.10	U	0.10	ug/L		12/14/12 13:49	12/17/12 11:33	1
Aroclor-1254	0.10	U	0.10	ug/L		12/14/12 13:49	12/17/12 11:33	1
Aroclor-1260	0.10	U	0.10	ug/L		12/14/12 13:49	12/17/12 11:33	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	83		10 - 114	12/14/12 13:49	12/17/12 11:33	1
Tetrachloro-m-xylene	86		15 - 131	12/14/12 13:49	12/17/12 11:33	1

Lab Sample ID: LCS 240-68790/12-A

Matrix: Water

Analysis Batch: 68918

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 68790

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	2.50	2.54		ug/L		102	50 - 114
Aroclor-1260	2.50	2.42		ug/L		97	8 - 127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	82		10 - 114
Tetrachloro-m-xylene	87		15 - 131

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 240-68930/1-A

Matrix: Water

Analysis Batch: 69318

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 68930

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.050	U	0.050	mg/L		12/17/12 08:24	12/18/12 16:09	1
Nickel	0.010	U	0.010	mg/L		12/17/12 08:24	12/18/12 16:09	1
Lead	0.050	U	0.050	mg/L		12/17/12 08:24	12/18/12 16:09	1
Zinc	0.020	U	0.020	mg/L		12/17/12 08:24	12/18/12 16:09	1

Lab Sample ID: LCS 240-68930/2-A

Matrix: Water

Analysis Batch: 69318

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 68930

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	0.200	0.197		mg/L		99	85 - 115
Nickel	0.500	0.488		mg/L		98	85 - 115
Lead	0.500	0.484		mg/L		97	85 - 115
Zinc	0.500	0.513		mg/L		103	85 - 115

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-18799-1

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 240-69134/1-A

Matrix: Water

Analysis Batch: 69532

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 69134

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		12/18/12 15:30	12/19/12 16:14	1

Lab Sample ID: LCS 240-69134/2-A

Matrix: Water

Analysis Batch: 69532

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 69134

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00500	0.00488		mg/L		98	85 - 115

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 240-70827/1-A

Matrix: Water

Analysis Batch: 70857

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 70827

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	5.0	U	5.0	mg/L		01/02/13 08:41	01/02/13 08:41	1

Lab Sample ID: LCS 240-70827/2-A

Matrix: Water

Analysis Batch: 70857

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 70827

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM	40.0	35.6		mg/L		89	78 - 114

Lab Sample ID: 240-18799-1 MS

Matrix: Water

Analysis Batch: 70857

Client Sample ID: WT-12607-121212-EE-001

Prep Type: Total/NA

Prep Batch: 70827

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM	4.7	U	38.2	31.4		mg/L		80	78 - 114

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

Lab Sample ID: MB 240-69392/1

Matrix: Water

Analysis Batch: 69392

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			12/19/12 10:36	1

Lab Sample ID: LCS 240-69392/2

Matrix: Water

Analysis Batch: 69392

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	58.6	58.0		mg/L		99	73 - 113

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-18799-1

Method: SM 3500 CR D - Chromium, Hexavalent

Lab Sample ID: MB 240-68494/3

Matrix: Water

Analysis Batch: 68494

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	-		12/13/12 08:40	1

Lab Sample ID: MB 240-68494/39

Matrix: Water

Analysis Batch: 68494

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	-		12/13/12 10:52	1

Lab Sample ID: LCS 240-68494/33

Matrix: Water

Analysis Batch: 68494

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	0.246		mg/L	-	99	80 - 118

Surrogate Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-18799-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB1 (10-114)	TCX1 (15-131)
240-18799-1	WT-12607-121212-EE-001	58	89
LCS 240-68790/12-A	Lab Control Sample	82	87
MB 240-68790/11-A	Method Blank	83	86

Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-18799-1

Client Sample ID: WT-12607-121212-EE-001

Lab Sample ID: 240-18799-1

Date Collected: 12/12/12 15:50

Matrix: Water

Date Received: 12/13/12 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			68790	12/14/12 13:49	SE	TAL NC
Total/NA	Analysis	608		1	68918	12/17/12 12:36	LH	TAL NC
Total Recoverable	Prep	200.7			68930	12/17/12 08:24	LM	TAL NC
Total Recoverable	Analysis	200.7 Rev 4.4		1	69318	12/18/12 16:48	RT	TAL NC
Total/NA	Prep	245.1			69134	12/18/12 15:30	SG	TAL NC
Total/NA	Analysis	245.1		1	69532	12/19/12 16:43	DH	TAL NC
Total/NA	Analysis	SM 3500 CR D		1	68494	12/13/12 18:16	BW	TAL NC
Total/NA	Analysis	SM 2540D		1	69392	12/19/12 10:36	LG	TAL NC
Total/NA	Analysis	1664A		1	70857	01/02/13 08:41	BW	TAL NC
Total/NA	Prep	1664A			70827	01/02/13 08:41	BW	TAL NC

Laboratory References:

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

Certification Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-005, RACER Livonia/Eckles Rd

TestAmerica Job ID: 240-18799-1

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	06-30-13
Connecticut	State Program	1	PH-0590	12-31-13
Florida	NELAP	4	E87225	06-30-13
Georgia	State Program	4	N/A	06-30-13
Illinois	NELAP	5	200004	07-31-13
Kansas	NELAP	7	E-10336	01-31-13
Kentucky	State Program	4	58	06-30-13
L-A-B	DoD ELAP		L2315	02-28-13
Nevada	State Program	9	OH-000482008A	07-31-13
New Jersey	NELAP	2	OH001	06-30-13
New York	NELAP	2	10975	04-01-13
Ohio VAP	State Program	5	CL0024	01-19-14
Pennsylvania	NELAP	3	68-00340	08-31-13
Texas	NELAP	6		08-03-13
USDA	Federal		P330-11-00328	08-26-14
Virginia	NELAP	3	460175	09-14-13
Washington	State Program	10	C971	01-12-13
Wisconsin	State Program	5	999518190	08-31-13



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-10353**

PAGE **1** OF **1**

(See Reverse Side for Instructions)

Project No/Phase/Task Code: 12607-Tol-005		Laboratory Name: Test America		Lab Location: N Canton, OH		SSOW ID: 12607-Tol-005															
Project Name: RACER Livonia GWTP		Lab Contact: Denise Hecker		Lab Quote No:		Cooler No:															
Project Location: Livonia, MI		SAMPLE TYPE: CONTAINER QUANTITY & PRESERVATION		ANALYSIS REQUESTED (See Back of COC for Definitions)		Carrier:															
Chemistry Contact: Paul Wiseman		Grab (G) or Comp (C)		Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO ₃)	Sulfuric Acid (H ₂ SO ₄)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil)	VOC	EnCores 3x3-g, 1x2.5-g	Other:	Total Containers/Sample	PCBs			Oil & Grease	Hex Chrome	TSS	Metals	MS/MSD Request
Sampler(s): Eric Engvall		Matrix Code		(see back of COC)	WT C	12/12/12 15:50															
SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)		DATE/TIME (Initials)																			
1 WT - 12607 - 12/12/12 - EE-001		12/12/12 15:50																			
2																					
3																					
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TestAmerica Canton Sample Receipt Form/Narrative

Login # : 18799

Client CRA Site Name _____ By: [Signature]
(Signature)Cooler Received on 12-13-12 Opened on 12-13-12
FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____TestAmerica Cooler # 241-2083 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# 1 (CF -2 °C) Observed Sample Temp. 6.9 °C Corrected Sample Temp. 4.9 °C

IR GUN# 4G (CF 0 °C) Observed Sample Temp. _____ °C Corrected Sample Temp. _____ °C

IR GUN# 5G (CF 0 °C) Observed Sample Temp. _____ °C Corrected Sample Temp. _____ °C

IR GUN# 8 (CF 0 °C) Observed Sample Temp. _____ °C Corrected Sample Temp. _____ °C

☐ Multiple
on Back

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

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 NoContacted PM _____ Date _____ by _____ via Verbal Voice Mail Other
Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

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)

Age Group	Percentage
1	100%
2	100%
3	100%
4	100%
5	100%
6	100%
7	100%
8	100%
9	100%
10	100%
11	100%
12	100%
13	100%
14	100%

Age	Number of people
1	10
2	9
3	8
4	7
5	6
6	5
7	4
8	3
9	2
10	1
11	1
12	1
13	1
14	1

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: 240-19987-1

Client Project/Site: 12607-T01Y13-012, RACER Eckles Rd

For:

Conestoga-Rovers & Associates, Inc.

14496 Sheldon Road, Suite 200

Plymouth, Michigan 48170

Attn: Mr. Paul Wiseman



Authorized for release by:

1/31/2013 9:23:38 AM

Denise Heckler

Project Manager II

denise.heckler@testamericainc.com

LINKS

Review your project
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-T01Y13-012, RACER Eckles Rd

TestAmerica Job ID: 240-19987-1

Job ID: 240-19987-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Conestoga-Rovers & Associates, Inc.

Project: 12607-T01Y13-012, RACER Eckles Rd

Report Number: 240-19987-1

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 01/17/2013; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.9 C.

POLYCHLORINATED BIPHENYLS (PCBS)

Sample WT-12607-011613-EE-001 (240-19987-1) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA Method 608. The samples were prepared on 01/21/2013 and analyzed on 01/24/2013.

No difficulties were encountered during the PCBs analysis.

All quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICP)

Sample WT-12607-011613-EE-001 (240-19987-1) was analyzed for total recoverable metals (ICP) in accordance with EPA Method 200.7. The samples were prepared on 01/18/2013 and analyzed on 01/21/2013.

No difficulties were encountered during the metals analysis.

All quality control parameters were within the acceptance limits.

Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y13-012, RACER Eckles Rd

TestAmerica Job ID: 240-19987-1

Job ID: 240-19987-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

MERCURY

Sample WT-12607-011613-EE-001 (240-19987-1) was analyzed for mercury in accordance with EPA Method 245.1. The samples were prepared on 01/21/2013 and analyzed on 01/23/2013.

No difficulties were encountered during the mercury analysis.

All quality control parameters were within the acceptance limits.

HEM

Sample WT-12607-011613-EE-001 (240-19987-1) was analyzed for HEM in accordance with EPA Method 1664A. The samples were prepared and analyzed on 01/30/2013.

No difficulties were encountered during the HEM analysis.

All other quality control parameters were within the acceptance limits.

TOTAL SUSPENDED SOLIDS

Sample WT-12607-011613-EE-001 (240-19987-1) was analyzed for total suspended solids in accordance with SM 2540D. The samples were analyzed on 01/22/2013.

No difficulties were encountered during the TSS analysis.

All quality control parameters were within the acceptance limits.

HEXAVALENT CHROMIUM

Sample WT-12607-011613-EE-001 (240-19987-1) was analyzed for hexavalent chromium in accordance with SM 3500 CR D. The samples were analyzed on 01/17/2013.

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-T01Y13-012, RACER Eckles Rd

TestAmerica Job ID: 240-19987-1

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.
☼	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)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
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-T01Y13-012, RACER Eckles Rd

TestAmerica Job ID: 240-19987-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-19987-1	WT-12607-011613-EE-001	Water	01/16/13 14:30	01/17/13 09:15

Detection Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y13-012, RACER Eckles Rd

TestAmerica Job ID: 240-19987-1

Client Sample ID: WT-12607-011613-EE-001

Lab Sample ID: 240-19987-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Nickel	0.18		0.010	mg/L	1		200.7 Rev 4.4	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

Method Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y13-012, RACER Eckles Rd

TestAmerica Job ID: 240-19987-1

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

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 NC = 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-T01Y13-012, RACER Eckles Rd

TestAmerica Job ID: 240-19987-1

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

Client Sample ID: WT-12607-011613-EE-001

Date Collected: 01/16/13 14:30

Date Received: 01/17/13 09:15

Lab Sample ID: 240-19987-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	ug/L		01/21/13 10:06	01/24/13 19:48	1
Aroclor-1221	0.095	U	0.095	ug/L		01/21/13 10:06	01/24/13 19:48	1
Aroclor-1232	0.095	U	0.095	ug/L		01/21/13 10:06	01/24/13 19:48	1
Aroclor-1242	0.095	U	0.095	ug/L		01/21/13 10:06	01/24/13 19:48	1
Aroclor-1248	0.095	U	0.095	ug/L		01/21/13 10:06	01/24/13 19:48	1
Aroclor-1254	0.095	U	0.095	ug/L		01/21/13 10:06	01/24/13 19:48	1
Aroclor-1260	0.095	U	0.095	ug/L		01/21/13 10:06	01/24/13 19:48	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	60		10 - 114			01/21/13 10:06	01/24/13 19:48	1
Tetrachloro-m-xylene	85		15 - 131			01/21/13 10:06	01/24/13 19:48	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y13-012, RACER Eckles Rd

TestAmerica Job ID: 240-19987-1

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

Client Sample ID: WT-12607-011613-EE-001

Date Collected: 01/16/13 14:30

Date Received: 01/17/13 09:15

Lab Sample ID: 240-19987-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.050	U	0.050	mg/L		01/18/13 08:05	01/21/13 20:58	1
Nickel	0.18		0.010	mg/L		01/18/13 08:05	01/21/13 20:58	1
Lead	0.050	U	0.050	mg/L		01/18/13 08:05	01/21/13 20:58	1
Zinc	0.020	U	0.020	mg/L		01/18/13 08:05	01/21/13 20:58	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y13-012, RACER Eckles Rd

TestAmerica Job ID: 240-19987-1

Method: 245.1 - Mercury (CVAA)

Client Sample ID: WT-12607-011613-EE-001

Date Collected: 01/16/13 14:30

Date Received: 01/17/13 09:15

Lab Sample ID: 240-19987-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		01/21/13 10:40	01/23/13 11:37	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y13-012, RACER Eckles Rd

TestAmerica Job ID: 240-19987-1

General Chemistry

Client Sample ID: WT-12607-011613-EE-001

Date Collected: 01/16/13 14:30

Date Received: 01/17/13 09:15

Lab Sample ID: 240-19987-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	4.7	U	4.7	mg/L		01/30/13 09:06	01/30/13 14:04	1
Total Suspended Solids	4.0	U	4.0	mg/L			01/22/13 13:28	1
Cr (VI)	0.0050	U	0.0050	mg/L			01/17/13 11:22	1

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y13-012, RACER Eckles Rd

TestAmerica Job ID: 240-19987-1

GC Semi VOA

Prep Batch: 72676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-19987-1	WT-12607-011613-EE-001	Total/NA	Water	3510C	
LCS 240-72676/22-A	Lab Control Sample	Total/NA	Water	3510C	
MB 240-72676/21-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 73154

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-19987-1	WT-12607-011613-EE-001	Total/NA	Water	608	72676
LCS 240-72676/22-A	Lab Control Sample	Total/NA	Water	608	72676
MB 240-72676/21-A	Method Blank	Total/NA	Water	608	72676

Metals

Prep Batch: 72499

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-19987-1	WT-12607-011613-EE-001	Total Recoverable	Water	200.7	
240-19987-1 MS	WT-12607-011613-EE-001	Total Recoverable	Water	200.7	
240-19987-1 MSD	WT-12607-011613-EE-001	Total Recoverable	Water	200.7	
LCS 240-72499/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
MB 240-72499/1-A	Method Blank	Total Recoverable	Water	200.7	

Prep Batch: 72651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-19987-1	WT-12607-011613-EE-001	Total/NA	Water	245.1	
240-19987-1 MS	WT-12607-011613-EE-001	Total/NA	Water	245.1	
240-19987-1 MSD	WT-12607-011613-EE-001	Total/NA	Water	245.1	
LCS 240-72651/2-A	Lab Control Sample	Total/NA	Water	245.1	
MB 240-72651/1-A	Method Blank	Total/NA	Water	245.1	

Analysis Batch: 72766

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-19987-1	WT-12607-011613-EE-001	Total Recoverable	Water	200.7 Rev 4.4	72499
240-19987-1 MS	WT-12607-011613-EE-001	Total Recoverable	Water	200.7 Rev 4.4	72499
240-19987-1 MSD	WT-12607-011613-EE-001	Total Recoverable	Water	200.7 Rev 4.4	72499

Analysis Batch: 72911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-72499/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	72499
MB 240-72499/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	72499

Analysis Batch: 72992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-19987-1	WT-12607-011613-EE-001	Total/NA	Water	245.1	72651
240-19987-1 MS	WT-12607-011613-EE-001	Total/NA	Water	245.1	72651
240-19987-1 MSD	WT-12607-011613-EE-001	Total/NA	Water	245.1	72651
LCS 240-72651/2-A	Lab Control Sample	Total/NA	Water	245.1	72651
MB 240-72651/1-A	Method Blank	Total/NA	Water	245.1	72651

TestAmerica Canton

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y13-012, RACER Eckles Rd

TestAmerica Job ID: 240-19987-1

General Chemistry

Analysis Batch: 72409

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-19987-1	WT-12607-011613-EE-001	Total/NA	Water	SM 3500 CR D	
240-19987-1 MS	WT-12607-011613-EE-001	Total/NA	Water	SM 3500 CR D	
240-19987-1 MSD	WT-12607-011613-EE-001	Total/NA	Water	SM 3500 CR D	
LCS 240-72409/4	Lab Control Sample	Total/NA	Water	SM 3500 CR D	
MB 240-72409/3	Method Blank	Total/NA	Water	SM 3500 CR D	

Analysis Batch: 72867

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-19987-1	WT-12607-011613-EE-001	Total/NA	Water	SM 2540D	
LCS 240-72867/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 240-72867/1	Method Blank	Total/NA	Water	SM 2540D	

Prep Batch: 73622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-19987-1	WT-12607-011613-EE-001	Total/NA	Water	1664A	
LCS 240-73622/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 240-73622/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 73689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-19987-1	WT-12607-011613-EE-001	Total/NA	Water	1664A	73622
LCS 240-73622/2-A	Lab Control Sample	Total/NA	Water	1664A	73622
MB 240-73622/1-A	Method Blank	Total/NA	Water	1664A	73622

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y13-012, RACER Eckles Rd

TestAmerica Job ID: 240-19987-1

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

Lab Sample ID: MB 240-72676/21-A

Matrix: Water

Analysis Batch: 73154

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 72676

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	ug/L		01/21/13 10:06	01/24/13 16:48	1
Aroclor-1221	0.10	U	0.10	ug/L		01/21/13 10:06	01/24/13 16:48	1
Aroclor-1232	0.10	U	0.10	ug/L		01/21/13 10:06	01/24/13 16:48	1
Aroclor-1242	0.10	U	0.10	ug/L		01/21/13 10:06	01/24/13 16:48	1
Aroclor-1248	0.10	U	0.10	ug/L		01/21/13 10:06	01/24/13 16:48	1
Aroclor-1254	0.10	U	0.10	ug/L		01/21/13 10:06	01/24/13 16:48	1
Aroclor-1260	0.10	U	0.10	ug/L		01/21/13 10:06	01/24/13 16:48	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	70		10 - 114	01/21/13 10:06	01/24/13 16:48	1
Tetrachloro-m-xylene	73		15 - 131	01/21/13 10:06	01/24/13 16:48	1

Lab Sample ID: LCS 240-72676/22-A

Matrix: Water

Analysis Batch: 73154

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 72676

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	2.50	2.21		ug/L		88	50 - 114
Aroclor-1260	2.50	2.06		ug/L		82	8 - 127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	68		10 - 114
Tetrachloro-m-xylene	80		15 - 131

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 240-72499/1-A

Matrix: Water

Analysis Batch: 72911

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 72499

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.050	U	0.050	mg/L		01/18/13 08:05	01/22/13 12:10	1
Nickel	0.010	U	0.010	mg/L		01/18/13 08:05	01/22/13 12:10	1
Lead	0.050	U	0.050	mg/L		01/18/13 08:05	01/22/13 12:10	1
Zinc	0.020	U	0.020	mg/L		01/18/13 08:05	01/22/13 12:10	1

Lab Sample ID: LCS 240-72499/2-A

Matrix: Water

Analysis Batch: 72911

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 72499

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	0.481		mg/L		96	85 - 115
Lead	0.500	0.477		mg/L		95	85 - 115
Zinc	0.500	0.485		mg/L		97	85 - 115

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y13-012, RACER Eckles Rd

TestAmerica Job ID: 240-19987-1

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

Lab Sample ID: 240-19987-1 MS

Matrix: Water

Analysis Batch: 72766

Client Sample ID: WT-12607-011613-EE-001

Prep Type: Total Recoverable

Prep Batch: 72499

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	0.050	U	0.200	0.227		mg/L		105	75 - 125
Nickel	0.18		0.500	0.722		mg/L		108	75 - 125
Lead	0.050	U	0.500	0.501		mg/L		100	75 - 125
Zinc	0.020	U	0.500	0.551		mg/L		110	75 - 125

Lab Sample ID: 240-19987-1 MSD

Matrix: Water

Analysis Batch: 72766

Client Sample ID: WT-12607-011613-EE-001

Prep Type: Total Recoverable

Prep Batch: 72499

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium	0.050	U	0.200	0.217		mg/L		100	75 - 125	4	20
Nickel	0.18		0.500	0.692		mg/L		102	75 - 125	4	20
Lead	0.050	U	0.500	0.481		mg/L		96	75 - 125	4	20
Zinc	0.020	U	0.500	0.532		mg/L		106	75 - 125	4	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 240-72651/1-A

Matrix: Water

Analysis Batch: 72992

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 72651

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		01/21/13 10:40	01/23/13 11:31	1

Lab Sample ID: LCS 240-72651/2-A

Matrix: Water

Analysis Batch: 72992

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 72651

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00500	0.00495		mg/L		99	85 - 115

Lab Sample ID: 240-19987-1 MS

Matrix: Water

Analysis Batch: 72992

Client Sample ID: WT-12607-011613-EE-001

Prep Type: Total/NA

Prep Batch: 72651

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00020	U	0.00100	0.000934		mg/L		93	70 - 130

Lab Sample ID: 240-19987-1 MSD

Matrix: Water

Analysis Batch: 72992

Client Sample ID: WT-12607-011613-EE-001

Prep Type: Total/NA

Prep Batch: 72651

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	0.000934		mg/L		93	70 - 130	0	20

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y13-012, RACER Eckles Rd

TestAmerica Job ID: 240-19987-1

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 240-73622/1-A

Matrix: Water

Analysis Batch: 73689

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 73622

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	5.0	U	5.0	mg/L		01/30/13 09:06	01/30/13 14:04	1

Lab Sample ID: LCS 240-73622/2-A

Matrix: Water

Analysis Batch: 73689

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 73622

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM	40.0	33.4		mg/L		83	78 - 114

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

Lab Sample ID: MB 240-72867/1

Matrix: Water

Analysis Batch: 72867

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			01/22/13 13:28	1

Lab Sample ID: LCS 240-72867/2

Matrix: Water

Analysis Batch: 72867

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	58.6	50.0		mg/L		85	73 - 113

Method: SM 3500 CR D - Chromium, Hexavalent

Lab Sample ID: MB 240-72409/3

Matrix: Water

Analysis Batch: 72409

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			01/17/13 11:20	1

Lab Sample ID: LCS 240-72409/4

Matrix: Water

Analysis Batch: 72409

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	0.247		mg/L		99	80 - 118

Lab Sample ID: 240-19987-1 MS

Matrix: Water

Analysis Batch: 72409

Client Sample ID: WT-12607-011613-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	0.176		mg/L		71	41 - 136

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y13-012, RACER Eckles Rd

TestAmerica Job ID: 240-19987-1

Method: SM 3500 CR D - Chromium, Hexavalent (Continued)

Lab Sample ID: 240-19987-1 MSD

Matrix: Water

Analysis Batch: 72409

Client Sample ID: WT-12607-011613-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	0.191		mg/L		76	41 - 136	8	20

Surrogate Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y13-012, RACER Eckles Rd

TestAmerica Job ID: 240-19987-1

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)
240-19987-1	WT-12607-011613-EE-001	60	85
LCS 240-72676/22-A	Lab Control Sample	68	80
MB 240-72676/21-A	Method Blank	70	73

Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y13-012, RACER Eckles Rd

TestAmerica Job ID: 240-19987-1

Client Sample ID: WT-12607-011613-EE-001

Lab Sample ID: 240-19987-1

Date Collected: 01/16/13 14:30

Matrix: Water

Date Received: 01/17/13 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			72676	01/21/13 10:06	SE	TAL NC
Total/NA	Analysis	608		1	73154	01/24/13 19:48	CV	TAL NC
Total Recoverable	Prep	200.7			72499	01/18/13 08:05	LM	TAL NC
Total Recoverable	Analysis	200.7 Rev 4.4		1	72766	01/21/13 20:58	RT	TAL NC
Total/NA	Prep	245.1			72651	01/21/13 10:40	LM	TAL NC
Total/NA	Analysis	245.1		1	72992	01/23/13 11:37	DH	TAL NC
Total/NA	Analysis	SM 3500 CR D		1	72409	01/17/13 11:22	AM	TAL NC
Total/NA	Analysis	SM 2540D		1	72867	01/22/13 13:28	CN	TAL NC
Total/NA	Prep	1664A			73622	01/30/13 09:06	AM	TAL NC
Total/NA	Analysis	1664A		1	73689	01/30/13 14:04	AM	TAL NC

Laboratory References:

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

Certification Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y13-012, RACER Eckles Rd

TestAmerica Job ID: 240-19987-1

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	06-30-13
Connecticut	State Program	1	PH-0590	12-31-13
Florida	NELAP	4	E87225	06-30-13
Georgia	State Program	4	N/A	06-30-13
Illinois	NELAP	5	200004	07-31-13
Kansas	NELAP	7	E-10336	01-31-13
Kentucky	State Program	4	58	06-30-13
L-A-B	DoD ELAP		L2315	02-28-13
Nevada	State Program	9	OH-000482008A	07-31-13
New Jersey	NELAP	2	OH001	06-30-13
New York	NELAP	2	10975	04-01-13
Ohio VAP	State Program	5	CL0024	01-19-14
Pennsylvania	NELAP	3	68-00340	08-31-13
Texas	NELAP	6		08-03-13
USDA	Federal		P330-11-00328	08-26-14
Virginia	NELAP	3	460175	09-14-13
Wisconsin	State Program	5	999518190	08-31-13



**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-10379**

PAGE **1** OF **1**

(See Reverse Side for Instructions)

Project No/Phase/Task Code: 12607-T01Y13-03		Laboratory Name: Test America		Lab Location: N Canton, OH		SSOW ID: 12607-T01Y13-02	
Project Name: RACER Livonia GNTF		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		SAMPLE TYPE		PRESERVATION		Carrier:	
Sampler(s): Erik Engnell		Matrix Code		PRESERVATION		Carrier:	
DATE/TIME		DATE/TIME		DATE/TIME		Carrier:	
1 WT - 12607-011613-EE-001		11/16/13 1430		11/16/13 1430		Carrier:	
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TestAmerica Canton Sample Receipt Form/Narrative

Login # : 19987

Client CRA Site Name _____ By: Ferrill (Signature)
Cooler Received on 1-17-13 Opened on 1-17-13
FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____
TestAmerica Cooler # 260-210 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# 1 (CF -2 °C) Observed Sample Temp. 4.9 °C Corrected Sample Temp. 2.9 °C
IR GUN# 4G (CF 0 °C) Observed Sample Temp. _____ °C Corrected Sample Temp. _____ °C
IR GUN# 5G (CF 0 °C) Observed Sample Temp. _____ °C Corrected Sample Temp. _____ °C
IR GUN# 8 (CF 0 °C) Observed Sample Temp. _____ °C Corrected Sample Temp. _____ °C

☐ Multiple
on Back

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?

-Were custody seals on the bottle(s)?

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

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)

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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: 240-21288-1

Client Project/Site: 12607-T01Y13-012, RACER Eckles Rd

For:

Conestoga-Rovers & Associates, Inc.

14496 Sheldon Road, Suite 200

Plymouth, Michigan 48170

Attn: Mr. Paul Wiseman



Authorized for release by:

3/7/2013 5:40:11 AM

Denise Heckler

Project Manager II

denise.heckler@testamericainc.com

LINKS

Review your project
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-T01Y13-012, RACER Eckles Rd

TestAmerica Job ID: 240-21288-1

Job ID: 240-21288-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Conestoga-Rovers & Associates, Inc.

Project: 12607-T01Y13-012, RACER Eckles Rd

Report Number: 240-21288-1

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 02/21/2013; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.2 C.

POLYCHLORINATED BIPHENYLS (PCBS)

Sample WT-12607-022013-EE-001 (240-21288-1) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA Method 608. The samples were prepared on 02/28/2013 and analyzed on 03/04/2013.

No difficulties were encountered during the PCBs analysis.

All quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICP)

Sample WT-12607-022013-EE-001 (240-21288-1) was analyzed for total recoverable metals (ICP) in accordance with EPA Method 200.7. The samples were prepared on 02/22/2013 and analyzed on 02/26/2013.

No difficulties were encountered during the metals analysis.

All quality control parameters were within the acceptance limits.

Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y13-012, RACER Eckles Rd

TestAmerica Job ID: 240-21288-1

Job ID: 240-21288-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

MERCURY

Sample WT-12607-022013-EE-001 (240-21288-1) was analyzed for mercury in accordance with EPA Method 245.1. The samples were prepared on 02/27/2013 and analyzed on 02/28/2013.

No difficulties were encountered during the mercury analysis.

All quality control parameters were within the acceptance limits.

HEM

Sample WT-12607-022013-EE-001 (240-21288-1) was analyzed for HEM in accordance with EPA Method 1664A. The samples were prepared and analyzed on 03/06/2013.

No difficulties were encountered during the HEM analysis.

All other quality control parameters were within the acceptance limits.

TOTAL SUSPENDED SOLIDS

Sample WT-12607-022013-EE-001 (240-21288-1) was analyzed for total suspended solids in accordance with SM 2540D. The samples were analyzed on 02/25/2013.

No difficulties were encountered during the TSS analysis.

All quality control parameters were within the acceptance limits.

HEXAVALENT CHROMIUM

Sample WT-12607-022013-EE-001 (240-21288-1) was analyzed for hexavalent chromium in accordance with SM 3500 CR D. The samples were analyzed on 02/21/2013.

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-T01Y13-012, RACER Eckles Rd

TestAmerica Job ID: 240-21288-1

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)
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)
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-T01Y13-012, RACER Eckles Rd

TestAmerica Job ID: 240-21288-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-21288-1	WT-12607-022013-EE-001	Water	02/20/13 13:30	02/21/13 09:15

Detection Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y13-012, RACER Eckles Rd

TestAmerica Job ID: 240-21288-1

Client Sample ID: WT-12607-022013-EE-001

Lab Sample ID: 240-21288-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.36		0.050	mg/L	1		200.7 Rev 4.4	Total
Nickel	0.33		0.010	mg/L	1		200.7 Rev 4.4	Recoverable
Total Suspended Solids	5.0		4.0	mg/L	1		SM 2540D	Total
Cr (VI)	0.070		0.0050	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-T01Y13-012, RACER Eckles Rd

TestAmerica Job ID: 240-21288-1

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

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 NC = 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-T01Y13-012, RACER Eckles Rd

TestAmerica Job ID: 240-21288-1

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

Client Sample ID: WT-12607-022013-EE-001

Date Collected: 02/20/13 13:30

Date Received: 02/21/13 09:15

Lab Sample ID: 240-21288-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	ug/L		02/28/13 10:33	03/04/13 02:21	1
Aroclor-1221	0.095	U	0.095	ug/L		02/28/13 10:33	03/04/13 02:21	1
Aroclor-1232	0.095	U	0.095	ug/L		02/28/13 10:33	03/04/13 02:21	1
Aroclor-1242	0.095	U	0.095	ug/L		02/28/13 10:33	03/04/13 02:21	1
Aroclor-1248	0.095	U	0.095	ug/L		02/28/13 10:33	03/04/13 02:21	1
Aroclor-1254	0.095	U	0.095	ug/L		02/28/13 10:33	03/04/13 02:21	1
Aroclor-1260	0.095	U	0.095	ug/L		02/28/13 10:33	03/04/13 02:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	68		10 - 114			02/28/13 10:33	03/04/13 02:21	1
Tetrachloro-m-xylene	48		15 - 131			02/28/13 10:33	03/04/13 02:21	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y13-012, RACER Eckles Rd

TestAmerica Job ID: 240-21288-1

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

Client Sample ID: WT-12607-022013-EE-001

Date Collected: 02/20/13 13:30

Date Received: 02/21/13 09:15

Lab Sample ID: 240-21288-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.36		0.050	mg/L		02/22/13 07:18	02/26/13 11:07	1
Nickel	0.33		0.010	mg/L		02/22/13 07:18	02/26/13 11:07	1
Lead	0.050	U	0.050	mg/L		02/22/13 07:18	02/26/13 11:07	1
Zinc	0.020	U	0.020	mg/L		02/22/13 07:18	02/26/13 11:07	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y13-012, RACER Eckles Rd

TestAmerica Job ID: 240-21288-1

Method: 245.1 - Mercury (CVAA)

Client Sample ID: WT-12607-022013-EE-001

Date Collected: 02/20/13 13:30

Date Received: 02/21/13 09:15

Lab Sample ID: 240-21288-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		02/27/13 14:20	02/28/13 08:39	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y13-012, RACER Eckles Rd

TestAmerica Job ID: 240-21288-1

General Chemistry

Client Sample ID: WT-12607-022013-EE-001

Date Collected: 02/20/13 13:30

Date Received: 02/21/13 09:15

Lab Sample ID: 240-21288-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	4.7	U	4.7	mg/L		03/06/13 08:57	03/06/13 08:57	1
Total Suspended Solids	5.0		4.0	mg/L			02/25/13 13:32	1
Cr (VI)	0.070		0.0050	mg/L			02/21/13 10:54	1

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y13-012, RACER Eckles Rd

TestAmerica Job ID: 240-21288-1

GC Semi VOA

Prep Batch: 76792

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-21288-1	WT-12607-022013-EE-001	Total/NA	Water	3520C	
LCS 240-76792/15-A	Lab Control Sample	Total/NA	Water	3520C	
MB 240-76792/14-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 76991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-21288-1	WT-12607-022013-EE-001	Total/NA	Water	608	76792
LCS 240-76792/15-A	Lab Control Sample	Total/NA	Water	608	76792
MB 240-76792/14-A	Method Blank	Total/NA	Water	608	76792

Metals

Prep Batch: 76153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-21288-1	WT-12607-022013-EE-001	Total Recoverable	Water	200.7	
240-21288-1 MS	WT-12607-022013-EE-001	Total Recoverable	Water	200.7	
240-21288-1 MSD	WT-12607-022013-EE-001	Total Recoverable	Water	200.7	
LCS 240-76153/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
MB 240-76153/1-A	Method Blank	Total Recoverable	Water	200.7	

Analysis Batch: 76496

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-21288-1	WT-12607-022013-EE-001	Total Recoverable	Water	200.7 Rev 4.4	76153
240-21288-1 MS	WT-12607-022013-EE-001	Total Recoverable	Water	200.7 Rev 4.4	76153
240-21288-1 MSD	WT-12607-022013-EE-001	Total Recoverable	Water	200.7 Rev 4.4	76153
LCS 240-76153/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	76153
MB 240-76153/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	76153

Prep Batch: 76604

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-21288-1	WT-12607-022013-EE-001	Total/NA	Water	245.1	
240-21288-1 MS	WT-12607-022013-EE-001	Total/NA	Water	245.1	
240-21288-1 MSD	WT-12607-022013-EE-001	Total/NA	Water	245.1	
LCS 240-76604/2-A	Lab Control Sample	Total/NA	Water	245.1	
MB 240-76604/1-A	Method Blank	Total/NA	Water	245.1	

Analysis Batch: 76788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-21288-1	WT-12607-022013-EE-001	Total/NA	Water	245.1	76604
240-21288-1 MS	WT-12607-022013-EE-001	Total/NA	Water	245.1	76604
240-21288-1 MSD	WT-12607-022013-EE-001	Total/NA	Water	245.1	76604
LCS 240-76604/2-A	Lab Control Sample	Total/NA	Water	245.1	76604
MB 240-76604/1-A	Method Blank	Total/NA	Water	245.1	76604

General Chemistry

Analysis Batch: 76075

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-21288-1	WT-12607-022013-EE-001	Total/NA	Water	SM 3500 CR D	
240-21288-1 MS	WT-12607-022013-EE-001	Total/NA	Water	SM 3500 CR D	

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QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y13-012, RACER Eckles Rd

TestAmerica Job ID: 240-21288-1

General Chemistry (Continued)

Analysis Batch: 76075 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-21288-1 MSD	WT-12607-022013-EE-001	Total/NA	Water	SM 3500 CR D	
LCS 240-76075/4	Lab Control Sample	Total/NA	Water	SM 3500 CR D	
MB 240-76075/3	Method Blank	Total/NA	Water	SM 3500 CR D	

Analysis Batch: 76388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-21288-1	WT-12607-022013-EE-001	Total/NA	Water	SM 2540D	
LCS 240-76388/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 240-76388/1	Method Blank	Total/NA	Water	SM 2540D	

Prep Batch: 77388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-21288-1	WT-12607-022013-EE-001	Total/NA	Water	1664A	
LCS 240-77388/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 240-77388/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 77422

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-21288-1	WT-12607-022013-EE-001	Total/NA	Water	1664A	77388
LCS 240-77388/2-A	Lab Control Sample	Total/NA	Water	1664A	77388
MB 240-77388/1-A	Method Blank	Total/NA	Water	1664A	77388

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y13-012, RACER Eckles Rd

TestAmerica Job ID: 240-21288-1

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

Lab Sample ID: MB 240-76792/14-A

Matrix: Water

Analysis Batch: 76991

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 76792

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	ug/L		02/28/13 10:33	03/04/13 03:18	1
Aroclor-1221	0.10	U	0.10	ug/L		02/28/13 10:33	03/04/13 03:18	1
Aroclor-1232	0.10	U	0.10	ug/L		02/28/13 10:33	03/04/13 03:18	1
Aroclor-1242	0.10	U	0.10	ug/L		02/28/13 10:33	03/04/13 03:18	1
Aroclor-1248	0.10	U	0.10	ug/L		02/28/13 10:33	03/04/13 03:18	1
Aroclor-1254	0.10	U	0.10	ug/L		02/28/13 10:33	03/04/13 03:18	1
Aroclor-1260	0.10	U	0.10	ug/L		02/28/13 10:33	03/04/13 03:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	89		10 - 114	02/28/13 10:33	03/04/13 03:18	1
Tetrachloro-m-xylene	67		15 - 131	02/28/13 10:33	03/04/13 03:18	1

Lab Sample ID: LCS 240-76792/15-A

Matrix: Water

Analysis Batch: 76991

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 76792

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	2.50	2.47		ug/L		99	50 - 114
Aroclor-1260	2.50	2.33		ug/L		93	8 - 127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	94		10 - 114
Tetrachloro-m-xylene	75		15 - 131

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 240-76153/1-A

Matrix: Water

Analysis Batch: 76496

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 76153

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.050	U	0.050	mg/L		02/22/13 07:18	02/26/13 10:45	1
Nickel	0.010	U	0.010	mg/L		02/22/13 07:18	02/26/13 10:45	1
Lead	0.050	U	0.050	mg/L		02/22/13 07:18	02/26/13 10:45	1
Zinc	0.020	U	0.020	mg/L		02/22/13 07:18	02/26/13 10:45	1

Lab Sample ID: LCS 240-76153/2-A

Matrix: Water

Analysis Batch: 76496

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 76153

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	0.200	0.191		mg/L		96	85 - 115
Nickel	0.500	0.488		mg/L		98	85 - 115
Lead	0.500	0.480		mg/L		96	85 - 115
Zinc	0.500	0.499		mg/L		100	85 - 115

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y13-012, RACER Eckles Rd

TestAmerica Job ID: 240-21288-1

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

Lab Sample ID: 240-21288-1 MS

Matrix: Water

Analysis Batch: 76496

Client Sample ID: WT-12607-022013-EE-001

Prep Type: Total Recoverable

Prep Batch: 76153

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	0.36		0.200	0.549		mg/L		96	75 - 125
Nickel	0.33		0.500	0.843		mg/L		102	75 - 125
Lead	0.050	U	0.500	0.497		mg/L		99	75 - 125
Zinc	0.020	U	0.500	0.521		mg/L		104	75 - 125

Lab Sample ID: 240-21288-1 MSD

Matrix: Water

Analysis Batch: 76496

Client Sample ID: WT-12607-022013-EE-001

Prep Type: Total Recoverable

Prep Batch: 76153

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium	0.36		0.200	0.547		mg/L		96	75 - 125	0	20
Nickel	0.33		0.500	0.840		mg/L		101	75 - 125	0	20
Lead	0.050	U	0.500	0.495		mg/L		99	75 - 125	0	20
Zinc	0.020	U	0.500	0.519		mg/L		104	75 - 125	0	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 240-76604/1-A

Matrix: Water

Analysis Batch: 76788

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 76604

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		02/27/13 14:20	02/28/13 08:36	1

Lab Sample ID: LCS 240-76604/2-A

Matrix: Water

Analysis Batch: 76788

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 76604

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00500	0.00561		mg/L		112	85 - 115

Lab Sample ID: 240-21288-1 MS

Matrix: Water

Analysis Batch: 76788

Client Sample ID: WT-12607-022013-EE-001

Prep Type: Total/NA

Prep Batch: 76604

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00020	U	0.00100	0.00122		mg/L		122	70 - 130

Lab Sample ID: 240-21288-1 MSD

Matrix: Water

Analysis Batch: 76788

Client Sample ID: WT-12607-022013-EE-001

Prep Type: Total/NA

Prep Batch: 76604

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	0.00120		mg/L		120	70 - 130	2	20

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y13-012, RACER Eckles Rd

TestAmerica Job ID: 240-21288-1

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 240-77388/1-A

Matrix: Water

Analysis Batch: 77422

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 77388

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	5.0	U	5.0	mg/L		03/06/13 08:57	03/06/13 08:57	1

Lab Sample ID: LCS 240-77388/2-A

Matrix: Water

Analysis Batch: 77422

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 77388

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM	40.0	34.5		mg/L		86	78 - 114

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

Lab Sample ID: MB 240-76388/1

Matrix: Water

Analysis Batch: 76388

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			02/25/13 13:32	1

Lab Sample ID: LCS 240-76388/2

Matrix: Water

Analysis Batch: 76388

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	69.8	67.0		mg/L		96	73 - 113

Method: SM 3500 CR D - Chromium, Hexavalent

Lab Sample ID: MB 240-76075/3

Matrix: Water

Analysis Batch: 76075

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			02/21/13 10:52	1

Lab Sample ID: LCS 240-76075/4

Matrix: Water

Analysis Batch: 76075

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	0.231		mg/L		93	80 - 118

TestAmerica Canton

Surrogate Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y13-012, RACER Eckles Rd

TestAmerica Job ID: 240-21288-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB1 (10-114)	TCX1 (15-131)
240-21288-1	WT-12607-022013-EE-001	68	48
LCS 240-76792/15-A	Lab Control Sample	94	75
MB 240-76792/14-A	Method Blank	89	67

Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y13-012, RACER Eckles Rd

TestAmerica Job ID: 240-21288-1

Client Sample ID: WT-12607-022013-EE-001

Lab Sample ID: 240-21288-1

Date Collected: 02/20/13 13:30

Matrix: Water

Date Received: 02/21/13 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			76792	02/28/13 10:33	BM	TAL NC
Total/NA	Analysis	608		1	76991	03/04/13 02:21	LH	TAL NC
Total Recoverable	Prep	200.7			76153	02/22/13 07:18	LM	TAL NC
Total Recoverable	Analysis	200.7 Rev 4.4		1	76496	02/26/13 11:07	NJT	TAL NC
Total/NA	Prep	245.1			76604	02/27/13 14:20	LM	TAL NC
Total/NA	Analysis	245.1		1	76788	02/28/13 08:39	AS	TAL NC
Total/NA	Analysis	SM 3500 CR D		1	76075	02/21/13 10:54	BW	TAL NC
Total/NA	Analysis	SM 2540D		1	76388	02/25/13 13:32	CN	TAL NC
Total/NA	Analysis	1664A		1	77422	03/06/13 08:57	NP	TAL NC
Total/NA	Prep	1664A			77388	03/06/13 08:57	NP	TAL NC

Laboratory References:

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

Certification Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y13-012, RACER Eckles Rd

TestAmerica Job ID: 240-21288-1

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	06-30-13
Connecticut	State Program	1	PH-0590	12-31-13
Florida	NELAP	4	E87225	06-30-13
Georgia	State Program	4	N/A	06-30-13
Illinois	NELAP	5	200004	07-31-13
Kansas	NELAP	7	E-10336	01-31-14
Kentucky	State Program	4	58	06-30-13
L-A-B	DoD ELAP		L2315	07-28-13
Minnesota	NELAP	5	039-999-348	12-31-13
Nevada	State Program	9	OH-000482008A	07-31-13
New Jersey	NELAP	2	OH001	06-30-13
New York	NELAP	2	10975	04-01-13
Ohio VAP	State Program	5	CL0024	01-19-14
Pennsylvania	NELAP	3	68-00340	08-31-13
Texas	NELAP	6		08-03-13
USDA	Federal		P330-11-00328	08-26-14
Virginia	NELAP	3	460175	09-14-13
Washington	State Program	10	C971	01-12-14
West Virginia DEP	State Program	3	210	12-31-13
Wisconsin	State Program	5	999518190	08-31-13



CHAIN OF CUSTODY RECORD

114496 Sheldon Road, Suite #200, Plymouth, Michigan 48170

Phone: (734) 453-5123

Fax: (734) 453-5201

COC NO: PL-10437

PAGE 1 OF 1

(See Reverse Side for Instructions)

Project No/ Phase/Task Code: 12607-TOY13-003		Laboratory Name: Test America		Lab Location: N Canton, OH		SSOW ID: 12607-TOY13-012	
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		SAMPLE TYPE		Total Containers/Sample		Airbill No:	
Sampler(s): Erik Engnell		Matrix Code (see back of COC)		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:	
1 WT-12607-022013-EE-001		2/20/13		1330			
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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 # : 21288

Client CRA Site Name _____ By: [Signature]
Cooler Received on 2-21-13 Opened on 2-21-13 (Signature)
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# 1 (CF -2 °C) Observed Sample Temp. 4.2 °C Corrected Sample Temp. 2.2 °C
IR GUN# 4G (CF 0 °C) Observed Sample Temp. _____ °C Corrected Sample Temp. _____ °C
IR GUN# 5G (CF 0 °C) Observed Sample Temp. _____ °C Corrected Sample Temp. _____ °C
IR GUN# 8 (CF 0 °C) Observed Sample Temp. _____ °C Corrected Sample Temp. _____ °C

☐ Multiple
on Back

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
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

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 Sample Receiving to meet recommended pH level(s). Nitric Acid Lot# 031512-HNO₃; Sulfuric Acid Lot# 051012-H₂SO₄; Sodium Hydroxide Lot# 121809-NaOH; Hydrochloric Acid Lot# 041911-HCl; Sodium Hydroxide and Zinc Acetate Lot# 100108-(CH₃COO)₂ZN/NaOH. What time was preservative added to sample(s)? _____

[illegible]