



**CONESTOGA-ROVERS
& ASSOCIATES**

620 South Capitol Avenue, Suite #100, Lansing, MI 48933
Telephone: 517-316-2397 Facsimile: 517-316-2398
www.CRAworld.com

July 14, 2009

Reference No. 017360-10

Ms. Natalie Stopyak
Consumers Energy Company
1945 West Parnell Road
Jackson, Michigan 49201

Dear Ms. Stopyak:

Re: Summary of Semi-Annual Groundwater Monitoring
Consumers Energy Company Property
Wyoming, Michigan

1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) has prepared this summary of semi-annual groundwater monitoring activities (Summary) conducted on a portion of the property (Permanent Parcel No. 41-17-13-183-003) owned by Consumers Energy Company (Consumers) in Wyoming, Michigan (Property). The semi-annual groundwater monitoring activities were conducted in accordance with the License for Environmental Monitoring (License Kent #ES0900), which was executed between Consumers and GM for the installation of a monitoring well and subsequent periodic sampling on an approximately 0.07-acre portion of the Property (herein identified as Site). The purpose of the semi-annual groundwater monitoring is to further evaluate environmental conditions in the area of the General Motors Grand Rapids Metal Plant in accordance with a Work Plan approved by the Michigan Department of Environmental Quality (MDEQ). Figure 1 presents the Site location.

2.0 SCOPE OF WORK

The scope of work (SOW) for activities conducted at the Site included groundwater sampling. These activities are described in detail below. Figure 2 presents the approximate monitoring well location. Legal surveys of the Property (Permanent Parcel No. 41-17-13-183-003) and the location of the monitoring well on the Property were presented as Figures 3 and 4, respectively, in the previous letter dated December 20, 2006 and submitted to Consumers.

2.1 GROUNDWATER SAMPLING

Groundwater sampling was conducted at MW17-06 on April 6, 2009. Prior to groundwater sample collection, the well cap was unlocked and removed allowing the water level in the well to stabilize. Upon stabilization, a static water level was recorded for MW17-06 using a water level meter. The recorded static water level in MW17-06 was 7.08 feet bgs. Dedicated ¼-inch diameter polyethylene tubing was utilized for sampling in the well. The bottom intake of the tubing was set in the middle of the screened interval for the well. The well was purged with a peristaltic pump using low-flow purge (LFP) techniques. The well was purged at 100 mL per minute with continuous monitoring to confirm less than 0.3 feet of drawdown of the water



**CONESTOGA-ROVERS
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July 14, 2009

- 2 -

Reference No. 017360-10

level. Groundwater quality measurements were recorded in consecutive timed intervals using a Horiba and a HF Scientific turbidity meter. Groundwater quality parameters included pH, specific conductivity, temperature, dissolved oxygen (DO), oxidation-reduction potential (ORP), and turbidity. Upon groundwater stabilization, based on three consecutive similar readings, groundwater samples were collected. Groundwater quality measurements are presented in Table 1.

One groundwater sample was collected from MW17-06, containerized in laboratory-provided containers, labeled, placed on ice, and shipped under chain-of-custody protocol to TestAmerica Laboratories located in North Canton, Ohio for analysis for Target Compound List (TCL) volatile organic compounds (VOCs). A sample summary is presented in Table 2. Groundwater sample results are presented in Table 3. Analytical data is presented in Attachment A.

Please contact the undersigned at (517) 316-2397 should you have any questions regarding this Summary.

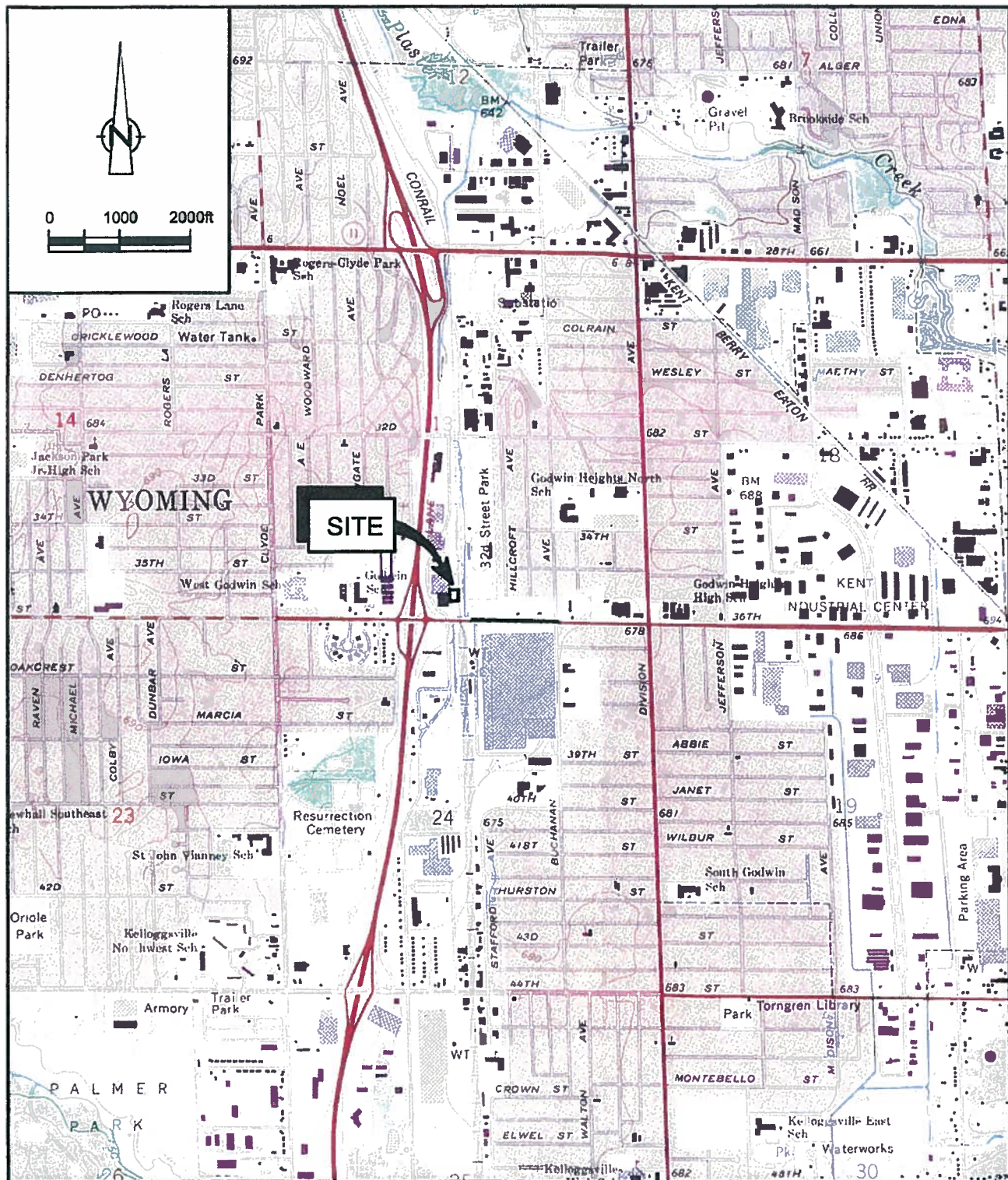
Yours truly,

CONESTOGA-ROVERS & ASSOCIATES

Jennifer L. Quigley

LC/te/6/Lan.
Encl.

c.c.: Larry W. Harness III, CE
Scott Haeger, Alix Partners/MLC
Jim Redwine, Alix Partners/MLC



SOURCE: USGS QUADRANGLE MAP;
GRAND RAPIDS WEST, MICHIGAN



figure 1
SITE LOCATION
CONSUMERS ENERGY PROPERTY
Wyoming, Michigan

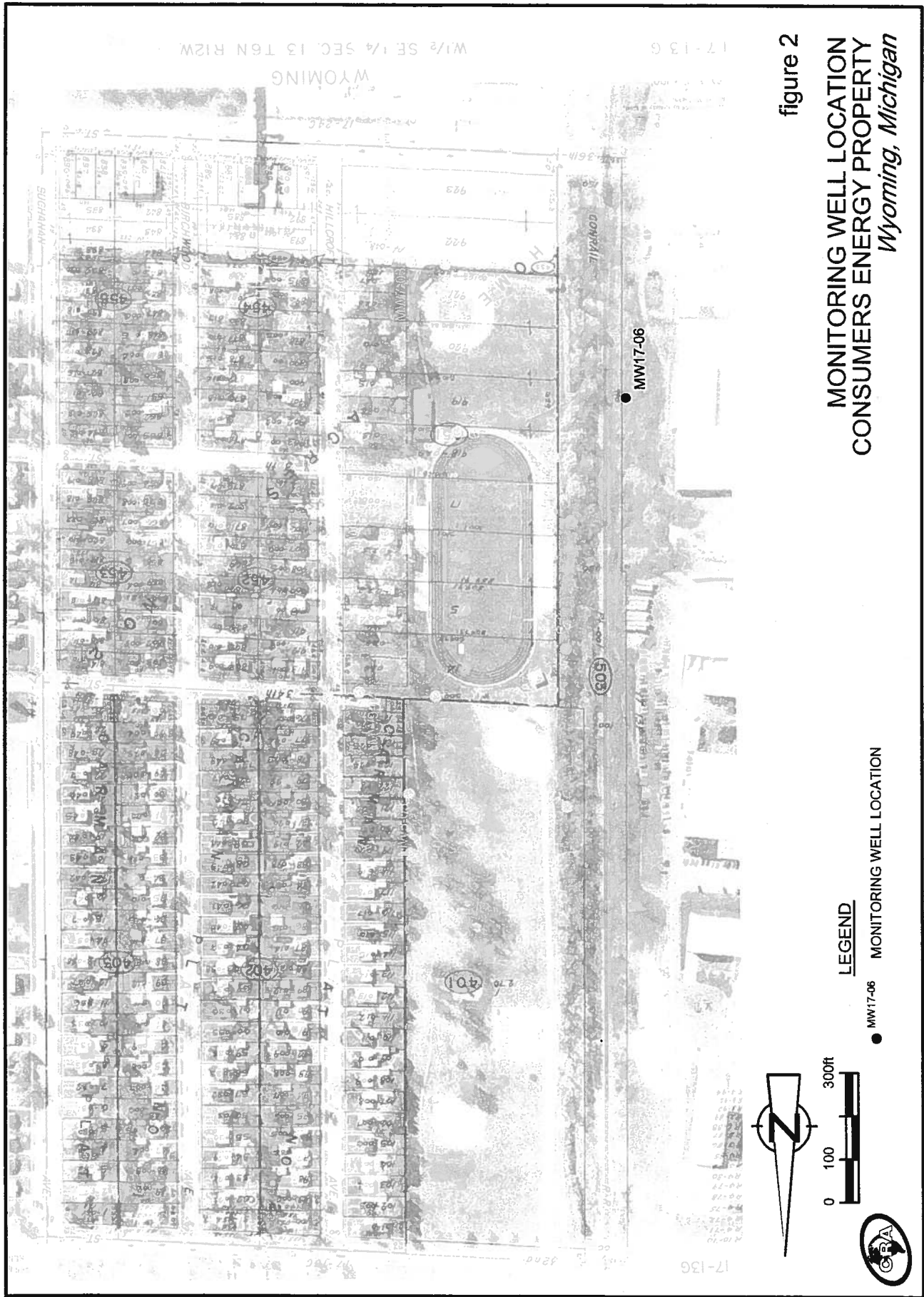


figure 2

MONITORING WELL LOCATION
CONSUMERS ENERGY PROPERTY
Wyoming, Michigan

TABLE 1

GROUNDWATER QUALITY PARAMETERS
 APRIL 2009 SEMI-ANNUAL GROUNDWATER MONITORING SUMMARY
 CONSUMERS ENERGY COMPANY PROPERTY
 WYOMING, MICHIGAN

Monitoring Well Location	Water Level (ft. BTOR)	Time (hours:minutes)	Purge Rate (mL/per min.)	Turbidity (NTU)	Temperature (°C)	Conductivity (mS/cm)	pH (Units)	DO (mg/L)	ORP (mv)
MW17-06	7.08	15:20	100	2.71	12.38	2.054	7.28	0.84	30
	7.08	15:25	100	2.36	12.60	2.079	7.26	0.63	37
	7.08	15:30	100	2.11	12.82	2.102	7.23	0.42	47
	7.08	15:35	100	2.23	12.43	2.106	7.24	0.44	48
	7.08	15:40	100	2.09	12.72	2.110	7.21	0.42	51

Notes:

ft. BTOR - feet below top of riser
 NA - Not Available

TABLE 2

APRIL 2009 SEMI-ANNUAL GROUNDWATER MONITORING SUMMARY
CONSUMERS ENERGY COMPANY PROPERTY
WYOMING, MICHIGAN

<u>Sample Identification</u>	<u>Sample Location</u>	<u>Sample Interval</u> (Feet bgs)	<u>Matrix</u>	<u>QC Sample</u>	<u>Analysis</u>
GW-17360-040609-DR-234	MW17-06	--	Water	--	TCL VOCs

Notes:

TCL - Target Compound List
VOC - Volatile Organic Compounds

ATTACHMENT A
LABORATORY ANALYTICAL DATA

Conestoga-Rovers & Associates, Inc.

Client Sample ID: GW-17360-040609-DR-234

GC/MS Volatiles

Lot-Sample #...: A9D080156-030 Work Order #...: K9QXT1AA Matrix.....: WG
 Date Sampled...: 04/06/09 15:40 Date Received...: 04/08/09
 Prep Date.....: 04/15/09 Analysis Date...: 04/15/09
 Prep Batch #...: 9106137
 Dilution Factor: 1 Initial Wgt/Vol: 5 mL Final Wgt/Vol...: 5 mL
 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Acetone	ND	25	ug/L	1.1
Benzene	ND	1.0	ug/L	0.13
Bromodichloromethane	ND	1.0	ug/L	0.15
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
2-Butanone	ND	25	ug/L	0.57
Carbon disulfide	ND	5.0	ug/L	0.13
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	ND	1.0	ug/L	0.16
Chloromethane	ND	1.0	ug/L	0.30
Cyclohexane	ND	1.0	ug/L	0.12
Dibromochloromethane	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloro- propane	ND	1.0	ug/L	0.67
1,2-Dibromoethane	ND	1.0	ug/L	0.24
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
1,1-Dichloroethene	ND	1.0	ug/L	0.19
cis-1,2-Dichloroethene	31	1.0	ug/L	0.17
trans-1,2-Dichloroethene	0.97 J	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.14
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.19
Ethylbenzene	ND	1.0	ug/L	0.17
2-Hexanone	ND	50	ug/L	0.41
Isopropylbenzene	ND	5.0	ug/L	0.13
Methyl acetate	ND	10	ug/L	0.38
Methylene chloride	ND	5.0	ug/L	0.33
Methylcyclohexane	ND	1.0	ug/L	0.13
4-Methyl-2-pentanone	ND	50	ug/L	0.32
Methyl tert-butyl ether	ND	5.0	ug/L	0.17
Styrene	ND	1.0	ug/L	0.11

(Continued on next page)

Conestoga-Rovers & Associates, Inc.

Client Sample ID: GW-17360-040609-DR-234

GC/MS Volatiles

Lot-Sample #....: A9D080156-030 Work Order #....: K9QXT1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	24	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,2,4-Trichloro- benzene	ND	5.0	ug/L	0.15
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
1,1,2-Trichloroethane	ND	1.0	ug/L	0.27
Trichloroethene	6.6	1.0	ug/L	0.17
Trichlorofluoromethane	ND	1.0	ug/L	0.21
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	1.0	ug/L	0.28
Vinyl chloride	ND	1.0	ug/L	0.22
Xylenes (total)	ND	2.0	ug/L	0.28

SURROGATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
Dibromofluoromethane	96	(73 - 122)
1,2-Dichloroethane-d4	98	(61 - 128)
Toluene-d8	92	(76 - 110)
4-Bromofluorobenzene	78	(74 - 116)

NOTE(S) :

J Estimated result. Result is less than RL.