CONESTOGA-ROVERS
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April 18, 2012

Mr. Nate Nemani
Project Manager
U.S. EPA, Region 5
Waste, Pesticide and Toxins Division
77 West Jackson Boulevard DW-8J
Chicago, Illinois
U.S.A. 60604-3590

Dear Mr. Nemani:

Re: 2011 CA 750 Environmental Indicator Annual Monitoring Results
EPA ID #MID 041 793 340
RACER Nodular Facility - Saginaw, Michigan

This letter summarizes the CA 750 Environmental Indicators (EI) monitoring activities related to the Nodular Facility that is owned and operated by RACER in Saginaw, Michigan.

The annual CA 750 EI monitoring was completed during the week of October 31, 2011 to November 4, 2011.

The 2011 EI monitoring program was revised in accordance with the letter submitted to U.S. EPA dated April 11, 2011; these revisions included the following:

- Removal of Ammonia at MW-04757
- Removal of Hexavalent Chromium at MW-04757, MW-04250R, and MW-03945

Figure 1 presents databoxes for all RACER EI locations showing all data up to and including the 2011 EI results. As indicated on Figure 1:

- Ammonia was reported above the lowest applicable screening criterion (the GSI criterion of 2,120 micrograms per Litre (µg/L) in four monitoring wells ranging in concentration from 4,400 µg/L to 9,800 µg/L
- Hexavalent Chromium was reported above the lowest applicable screening criterion (the GSI criterion of 11 µg/L) at MW-04765 at an estimated value of 27 µg/L
- Total Cyanide was reported above the lowest applicable screening criterion (the GSI criterion of 5.2 µg/L) in MW-04765 at 15 µg/L

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- Mercury was reported above the lowest applicable screening criterion (the GSI criterion of 0.0013 µg/L) at MW-04250R at an estimated value of 0.0024 µg/L
- pH was reported above the acceptable range (6.5 to 8.5) at MW-04250R at 9.43 and at MW-04864 at 8.72

In summary, the results of the 2011 EI monitoring results are consistent or lower than the data evaluated in the RCRA CA725 & CA750 Environmental Indicators Supporting Documentation dated September 17, 2003, therefore, the EIs continue to be satisfied.

Based on the results of the annual EI monitoring conducted in 2011, RACER is proposing to modify the EI monitoring program for 2012. Table 1 presents the EI monitoring program and proposed modifications for the 2012 EI sampling event for your review. As indicated on Table 1, RACER is proposing that the following parameters be removed from the 2012 EI monitoring program since the most recent four consecutive rounds reported concentrations below the screening criteria:

- Ammonia at MW-04257
- Hexavalent Chromium at MW-04257, MW-04051, MW-04250R and MW-03945.
- Mercury at MW-04051 and MW-03945

Should you have any questions, please do not hesitate to call.

Yours truly,

CONESTOGA-ROVERS & ASSOCIATES

Michael R. Tomka

MT/kf/8
Encl.

cc: Grant Trigger, RACER
Dave Favero, RACER

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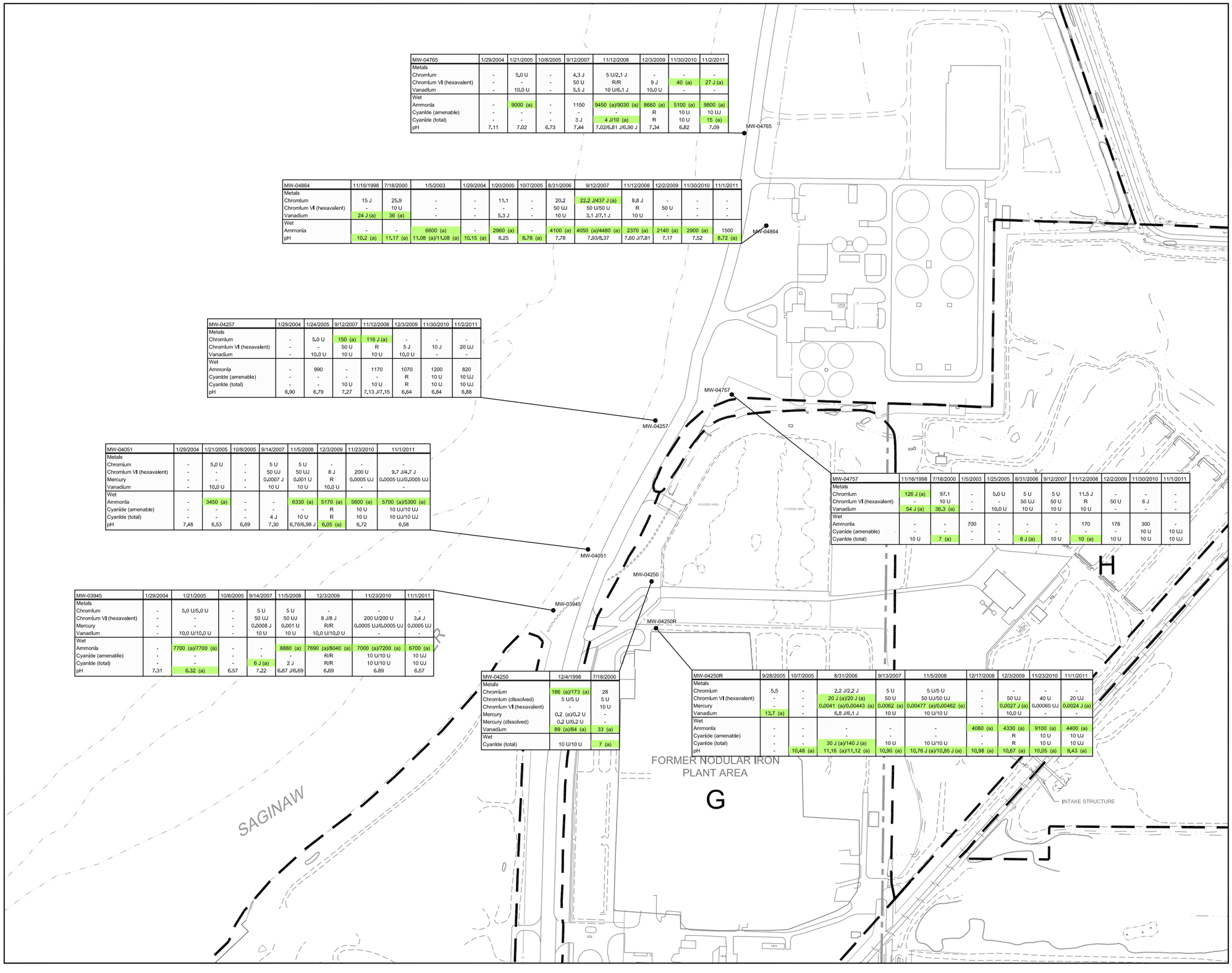

MW-04765	1/29/2004	1/21/2005	10/8/2005	9/12/2007	11/12/2008	12/3/2009	11/30/2010	11/2/2011
Metals								
Chromium	-	5,0 U	-	4,3 J	5 UJ/2,1 J	-	-	-
Chromium VI (hexavalent)	-	-	-	50 U	R/R	9 J	40 (a)	27 J (a)
Vanadium	-	10,0 U	-	5,5 J	10 U/6,1 J	10,0 U	-	-
Wet								
Ammonia	-	9000 (a)	-	1150	9450 (a)/9030 (a)	8660 (a)	5100 (a)	9800 (a)
Cyanide (amenable)	-	-	-	-	-	R	10 U	10 UJ
Cyanide (total)	-	-	-	3 J	4 J/10 (a)	R	10 U	15 (a)
pH	7,11	7,02	6,73	7,44	7,02/6,81 J/6,90 J	7,34	6,82	7,09

MW-04864	11/16/1998	7/18/2000	1/5/2003	1/29/2004	1/20/2005	10/7/2005	8/31/2006	9/12/2007	11/12/2008	12/2/2009	11/30/2010	11/1/2011
Metals												
Chromium	15 J	25,9	-	-	11,1	-	20,2	22,2 J/437 J (a)	8,8 J	-	-	-
Chromium VI (hexavalent)	-	10 U	-	-	-	-	50 UJ	50 U/50 U	R	50 U	-	-
Vanadium	24 J (a)	36 (a)	-	-	5,3 J	-	10 U	3,1 J/7,1 J	10 U	-	-	-
Wet												
Ammonia	-	-	6600 (a)	-	2960 (a)	-	4100 (a)	4050 (a)/4480 (a)	2370 (a)	2140 (a)	2900 (a)	1500
pH	10,2 (a)	11,17 (a)	11,08 (a)/11,08 (a)	10,15 (a)	8,25	8,78 (a)	7,78	7,93/8,37	7,60 J/7,81	7,17	7,52	8,72 (a)

MW-04257	1/29/2004	1/24/2005	9/12/2007	11/12/2008	12/3/2009	11/30/2010	11/2/2011
Metals							
Chromium	-	5,0 U	150 (a)	116 J (a)	-	-	-
Chromium VI (hexavalent)	-	-	50 U	R	5 J	10 J	20 UJ
Vanadium	-	10,0 U	10 U	10 U	10,0 U	-	-
Wet							
Ammonia	-	990	-	1170	1070	1200	820
Cyanide (amenable)	-	-	-	-	R	10 U	10 UJ
Cyanide (total)	-	-	10 U	10 U	R	10 U	10 UJ
pH	6,90	6,79	7,27	7,13 J/7,15	6,64	6,84	6,88

MW-04757	11/16/1998	7/18/2000	1/5/2003	1/25/2005	8/31/2006	9/12/2007	11/12/2008	12/2/2009	11/30/2010	11/1/2011
Metals										
Chromium	126 J (a)	97,1	-	5,0 U	5 U	5 U	11,5 J	-	-	-
Chromium VI (hexavalent)	-	10 U	-	-	50 UJ	50 U	R	50 U	6 J	-
Vanadium	54 J (a)	36,3 (a)	-	10,0 U	10 U	10 U	10 U	-	-	-
Wet										
Ammonia	-	-	700	-	-	-	170	178	300	-
Cyanide (amenable)	-	-	-	-	-	-	-	-	10 U	10 UJ
Cyanide (total)	10 U	7 (a)	-	-	8 J (a)	10 U	10 (a)	10 U	10 U	10 UJ

MW-04051	1/29/2004	1/21/2005	10/8/2005	9/14/2007	11/5/2008	12/3/2009	11/23/2010	11/1/2011
Metals								
Chromium	-	5,0 U	-	5 U	5 U	-	-	-
Chromium VI (hexavalent)	-	-	-	50 UJ	50 UJ	8 J	200 U	9,7 J/4,7 J
Mercury	-	-	-	0,0007 J	0,001 U	R	0,0005 UJ	0,0005 UJ/0,0005 UJ
Vanadium	-	10,0 U	-	10 U	10 U	10,0 U	-	-
Wet								
Ammonia	-	3450 (a)	-	-	6330 (a)	5170 (a)	5600 (a)	5700 (a)/5300 (a)
Cyanide (amenable)	-	-	-	-	-	R	10 U	10 UJ/10 UJ
Cyanide (total)	-	-	-	4 J	10 U	R	10 U	10 UJ/10 UJ
pH	7,48	6,53	6,69	7,30	6,76/6,98 J	6,05 (a)	6,72	6,58

MW-03945	1/29/2004	1/21/2005	10/8/2005	9/14/2007	11/5/2008	12/3/2009	11/23/2010	11/1/2011
Metals								
Chromium	-	5,0 U/5,0 U	-	5 U	5 U	-	-	-
Chromium VI (hexavalent)	-	-	-	50 UJ	50 UJ	8 J/8 J	200 U/200 U	3,4 J
Mercury	-	-	-	0,0008 J	0,001 U	R/R	0,0005 UJ/0,0005 UJ	0,0005 UJ
Vanadium	-	10,0 U/10,0 U	-	10 U	10 U	10,0 U/10,0 U	-	-
Wet								
Ammonia	-	7700 (a)/7700 (a)	-	-	8880 (a)	7690 (a)/8040 (a)	7000 (a)/7200 (a)	6700 (a)
Cyanide (amenable)	-	-	-	-	-	R/R	10 U/10 U	10 UJ
Cyanide (total)	-	-	-	6 J (a)	2 J	R/R	10 U/10 U	10 UJ
pH	7,31	6,32 (a)	6,57	7,22	6,87 J/6,69	6,69	6,89	6,57

MW-04250	12/4/1998	7/18/2000
Metals		
Chromium	186 (a)/173 (a)	28
Chromium (dissolved)	5 U/5 U	5 U
Chromium VI (hexavalent)	-	10 U
Mercury	0,2 (a)/0,2 U	-
Mercury (dissolved)	0,2 U/0,2 U	-
Vanadium	89 (a)/84 (a)	33 (a)
Wet		
Cyanide (total)	10 U/10 U	7 (a)

MW-04250R	9/28/2005	10/7/2005	8/31/2006	9/13/2007	11/5/2008	12/17/2008	12/3/2009	11/23/2010	11/1/2011
Metals									
Chromium	5,5	-	2,2 J/2,2 J	5 U	5 U/5 U	-	-	-	-
Chromium VI (hexavalent)	-	-	20 J (a)/20 J (a)	50 U	50 UJ/50 UJ	-	50 UJ	40 U	20 UJ
Mercury	-	-	0,0041 (a)/0,00443 (a)	0,0062 (a)	0,00477 (a)/0,00462 (a)	-	0,0027 J (a)	0,00065 UJ	0,0024 J (a)
Vanadium	13,7 (a)	-	6,8 J/6,1 J	10 U	10 U/10 U	-	10,0 U	-	-
Wet									
Ammonia	-	-	-	-	-	4080 (a)	4330 (a)	9100 (a)	4400 (a)
Cyanide (amenable)	-	-	-	-	-	-	R	10 U	10 UJ
Cyanide (total)	-	-	30 J (a)/140 J (a)	10 U	10 U/10 U	-	R	10 U	10 UJ
pH	-	10,48 (a)	11,16 (a)/11,12 (a)	10,90 (a)	10,76 J (a)/10,85 J (a)	10,98 (a)	10,67 (a)	10,05 (a)	9,43 (a)

0 100 200 ft

LEGEND

- A– – INVESTIGATIVE UNIT BOUNDARY AND IDENTIFIER
- MW-04765 ● MONITORING WELL LOCATION
- ★ UNABLE TO LOCATE

MW-04765	1/21/2005	9/12/2007
Metals		
Chromium Total	5,0 U	4,3 J
Chromium VI (Hexavalent)	-	50 U
Vanadium	10,0 U	5,5 J
Wet		
Ammonia	9000	1150
Cyanide (total)	-	3 J
pH	-	7,44

- SAMPLE LOCATION
- SAMPLE DATE
- RESULT (ug/L) EXCEPT pH WHICH IS IN s.u.
- PARAMETER
- EXCEEDS CRITERIA

MICHIGAN PART 201 CRITERIA

fraction	Parameter	Lowest Criteria (ug/L or SU for pH)	
METAL	Chromium (total)	100	A
METAL	Chromium (VI)	11	D
METAL	Mercury	0,0013	D
METAL	Vanadium	12	D
WET	Ammonia	2120	D
WET	Cyanide (total)	5,2	D
WET	Cyanide (amenable)	5,2	D
WET	pH	6,5 - 8,5	A

Chromium (total) use Chromium III (Trivalent) criteria.
A: Industrial Commercial II III and IV Drinking Water Criteria
B: Groundwater Contact Criteria
C: Industrial Commercial II III and IV Groundwater Vol to Indoor Air Criteria
D: GSI Criteria

NOTES:

1. NOTE THAT THE UNIONIZED FRACTION OF AMMONIA IS A FUNCTION OF THE WATER BODY CLASSIFICATION (WARM WATER OR COLD WATER), PH AND TEMPERATURE OF THE RECEIVING WATER AND IS ESTIMATED AS A PERCENT OF THE TOTAL AMMONIA. THE SAGINAW RIVER HAS BEEN CLASSIFIED AS WARM WATER. THE GENERIC GSI CRITERION (CHRONIC) FOR UNIONIZED AMMONIA IS 53 ug/L FOR WARM WATER SURFACE WATER (SEE FOOTNOTE CC OF THE PART 201 CLEANUP CRITERIA/PART 213 RBSK-BASED SCREENING LEVELS RRD OPERATIONAL MEMORANDUM NO. 1 DATED DECEMBER 10, 2004). THE GENERIC ACUTE TOXICITY CRITERION FOR UNIONIZED AMMONIA IS 420 ug/L (PROVIDED TO CRA BY MDEQ ON MARCH 2, 2007 REGARDING A NEARBY FACILITY).

   BASED ON DATA AVAILABLE FOR THE SAGINAW RIVER FROM USGS, THE AVERAGE (1967-2005) TEMPERATURE AND PH FOR THE SAGINAW RIVER DURING THE FALL MONTHS (SEPT-NOV) ARE 12,5 DEGREES CELSIUS AND 8 S.U. UNITS, RESPECTIVELY (USGS GAUGE 04157005 SOURCE: HTTP://NWIS.WATERDATA.USGS.GOV/MI/NWIS/GW). THEREFORE, FOR A PH OF 8 AND A TEMPERATURE OF 12,5 DEGREES CELSIUS, APPROXIMATELY 2,5 PERCENT OF THE TOTAL AMMONIA WILL BE PRESENT IN THE UNIONIZED FORM RESULTING IN A TOTAL AMMONIA GENERIC GSI CRITERION (CHRONIC) OF 2,120 ug/L [53 ug/L / 0,025].

   THEREFORE, FOR A PH OF 8 AND A TEMPERATURE OF 12,5 DEGREES CELCIUS, APPROXIMATELY 2,5 PERCENT OF THE TOTAL AMMONIA WILL BE PRESENT IN THE UNIONIZED FORM OR A MAXIMUM OF 216,5 ug/L[8,660ug/L X 0,025] FOR THE NOVEMBER 2008 EVENT.

2. NOTE THAT THE GSI CRITERIA DEVELOPED FOR TOTAL CHROMIUM WAS DEVELOPED FROM THE FINAL CHRONIC VALUE CALCULATION FOR TRIVALENT CHROMIUM, AS SPECIFIED IN THE MDEQ GUIDANCE. TOTAL CHROMIUM RESULTS WERE COMPARED TO TRIVALENT CHROMIUM CRITERIA SINCE EXTENSIVE SITE DATA SUPPORTS THAT THE MAJORITY OF THE TOTAL CHROMIUM IS TRIVALENT CHROMIUM, HEXAVALENT CHROMIUM IS STILL SAMPLED AT NUMEROUS LOCATIONS AND IS COMPARED TO HEXAVALENT CHROMIUM CRITERIA.

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

RACER
NODULAR IRON INDUSTRIAL LAND

SAGINAW, MICHIGAN

SUMMARY OF EI LOCATIONS AND RESULTS (1998 - 2011)

CONESTOGA-ROVERS & ASSOCIATES

Source Reference:

Project Manager:	Reviewed By:	Date:	
M.T.	I.R.	FEBRUARY 2012	
Scale: 1"=400'	Project No: 58502-T01	Report No: NEMA008	Drawing No: figure 1

58502-T01(NEMA008)GN-WA001 FEB 6/2012

TABLE 1

EI MONITORING PROGRAM AND PROPOSED MODIFICATIONS
NODULAR FACILITY, SAGINAW, MICHIGAN

IU	*Location*	*Parameter*	*Monitoring Purpose*	*Propose to Eliminate from EI Monitoring*	*Comments*
G	MW-04250/MW-04250R	chromium, hexavalent	GSI	Yes	Hexavalent chromium did not exceed criteria for four consecutive rounds, therefore hexavalent chromium will be removed from future EI monitoring.
G	MW-04250/MW-04250R	cyanide (total and amenable)	GSI	No	
G	MW-04250/MW-04250R	mercury	GSI	No	
G	MW-04250/MW-04250R	pH	GSI	No	
G	MW-04250/MW-04250R	ammonia	GSI	No	
G	MW-04757	cyanide (total and amenable)	GSI	No	
G	MW-04757	ammonia	GSI	No	
G	MW-04864	pH	GSI	No	
G	MW-04864	ammonia	GSI	No	
Wells added in 2007 per EPA's email request dated August 8, 2007.					
G	MW-03945	chromium, hexavalent	GSI	Yes	Hexavalent chromium did not exceed criteria for four consecutive rounds, therefore hexavalent chromium will be removed from future EI monitoring.
G	MW-03945	cyanide (total and amenable)	GSI	No	
G	MW-03945	mercury	GSI	Yes	Mercury did not exceed criteria for four consecutive rounds, therefore mercury will be removed from future EI monitoring.
G	MW-03945	pH	GSI	No	
G	MW-03945	ammonia	GSI	No	
G	MW-04051	chromium, hexavalent	GSI	Yes	Hexavalent chromium did not exceed criteria for four consecutive rounds, therefore hexavalent chromium will be removed from future EI monitoring.
G	MW-04051	cyanide (total and amenable)	GSI	No	
G	MW-04051	mercury	GSI	Yes	Mercury did not exceed criteria for four consecutive rounds, therefore mercury will be removed from future EI monitoring.
G	MW-04051	pH	GSI	No	
G	MW-04051	ammonia	GSI	No	
G	MW-04257	chromium, hexavalent	GSI	Yes	Hexavalent chromium did not exceed criteria for four consecutive rounds, therefore hexavalent chromium will be removed from future EI monitoring.
G	MW-04257	cyanide (total and amenable)	GSI	No	
G	MW-04257	pH	GSI	No	
G	MW-04257	ammonia	GSI	Yes	Ammonia did not exceed criteria for four consecutive rounds, therefore Ammonia will be removed from future EI monitoring.
G	MW-04765	chromium, hexavalent	GSI	No	
G	MW-04765	cyanide (total and amenable)	GSI	No	
G	MW-04765	pH	GSI	No	
G	MW-04765	ammonia	GSI	No	

Notes:

- Table updated to remove select parameters based on 4 consecutive rounds below criteria.
- Wells evaluated using most recent groundwater data compared to appropriate EI criteria.
- Since 2005 all samples for metals analyses have been collected using low flow sampling techniques and were unfiltered.
- GSI = Selected to monitor stability based on exceedances of groundwater surface water interface criteria in most recent samples.
- NA - Not applicable.