

Exhibit No.:
Issue: *Bad Debt Factor-up*
Witness: *Jermaine Green*
Sponsoring Party: *MoPSC Staff*
Type of Exhibit: *Rebuttal Testimony*
Case No.: *WR-2011-0337*
Date Testimony Prepared: *January 19, 2012*

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MISSOURI PUBLIC SERVICE COMMISSION

REGULATORY REVIEW DIVISION

UTILITY SERVICES

REBUTTAL TESTIMONY

OF

JERMAINE GREEN

MISSOURI-AMERICAN WATER COMPANY

CASE NO. WR-2011-0337

Jefferson City, Missouri
January 2012

Staff Exhibit No. 7
Date 2-21-12 Reporter JL
File No WR-2011-0337

1 REBUTTAL TESTIMONY

2 OF

3 JERMAINE GREEN

4 MISSOURI-AMERICAN WATER COMPANY

5 CASE NO. WR-2011-0337

6 Q. Please state your name and business address.

7 A. Jermaine Green, Governor Office Building, P.O. Box 360,
8 Jefferson City, Missouri 65102.

9 Q. By whom are you employed and in what capacity?

10 A. I am a Utility Regulatory Auditor with the Missouri Public Service
11 Commission (Commission).

12 Q. Did you participate in the preparation of the Missouri Public Service
13 Commission Staff's (Staff) Cost of Service Report, filed November 17, 2011 in this case?

14 A. Yes.

15 Q. What is the purpose of your Rebuttal Testimony?

16 A. The purpose of my testimony is to address Missouri-American Water
17 Company (MAWC or Company) witness Peter J. Thakadiyil's Direct Testimony regarding
18 bad debt expense, specifically the application of a bad debt "factor up" or "gross-up" to
19 MAWC's revenue requirement increase.

20 **BAD DEBT FACTOR UP**

21 Q. Does Staff agree that it is reasonable to assume that there will be bad debts
22 associated with the revenue requirement increase granted in this rate case?

1 A. Yes, in theory, Staff agrees that bad debts may increase to some extent as a
2 result of an increase in MAWC's revenue requirement. However, Staff does not subscribe to
3 the position that any increase in the Company's revenue requirement should cause bad debt
4 expense to increase proportionally, or on a dollar-for-dollar basis. Staff has not seen any
5 evidence of such a direct correlation between revenues and bad debts. In fact, during Staff's
6 review of MAWC's bad debts and revenues, Staff found that there was several times in which
7 revenues increased and bad debts actually decreased. Alternatively, in other instances, Staff
8 found that bad debts increased at the same time revenues decreased.

9 Q. What is a bad debt "factor-up" or "gross-up", and what is the rationale behind
10 its use?

11 A. A bad debt "factor-up" or "gross-up" is a ratio or percentage of a company's
12 bad debt compared to its revenue, which is then applied to any revenue requirement increase
13 granted by the Commission. The application of the bad debt factor-up gives the Company
14 additional bad debt expense beyond the normalized level of bad debt expense used in
15 determining the Company's revenue requirement. The common justification given for the use
16 of a bad debt factor-up is the belief that there is a direct correlation between bad debt expense
17 and revenue, thus making it necessary to match the level of bad debt expense established in a
18 rate case with the amount of revenue requirement increase (or decrease) that will be
19 determined by the Commission during a rate case.

20 MAWC's use of a bad debt factor-up is based on the assumption that any amount of
21 increased revenues resulting from this rate case will cause bad debt expense to increase
22 proportionally. In other words, if some ratepayers are not able to pay their current utility bills
23 when due, chances are that some of these same customers will not be able to pay their bills

1 when they go up as a result of a rate increase. However, while Staff believes that this view
2 may seem reasonable on a theoretical basis, Staff has found from a practical point of view that
3 this theory does not usually hold true in practice. The use of a bad debt factor-up assumes it
4 is a virtual certainty that with each dollar of rate increase, a bad debt expense will increase
5 proportionally. This assumption does not present a realistic view and Staff has not found
6 evidence of this occurring. In order for MAWC's proposal to use a bad debt factor-up to be
7 justified, the Company would need to support its position with an analysis demonstrating a
8 direct correlation between revenue levels and bad debt levels.

9 Q. What does "correlation" mean?

10 A. The Webster's II New College Dictionary defines correlation as follows:

11 1. A casual, complementary, parallel, or reciprocal relationship
12 esp. structural, functional or qualitative correspondence
13 between comparable entities.

14 2. Statistics a. Simultaneous increase or decrease in value of
15 two numerically valued random variables.

16 b. Simultaneous increase in the value of one and decrease in the
17 value of the other of two numerically valued random variables.

18 While Staff believes there may be some relationship between a rate increase and
19 increased bad debt expense, Staff has generally found that rate increases do not always cause
20 a parallel increase in bad debt expense. The Company did not provide an analysis in this case
21 to support its position on this issue, nor has Staff found any indications that an increase in the
22 revenue requirement will result in a proportional increase in bad debt expense.

23 Q. Has Staff performed an analysis that supports Staff's position that there is no
24 direct relationship between an increase in MAWC's revenue requirement causing a direct
25 proportionate level of increase for MAWC's bad debt expense?

1 A. Yes. Attached to this Rebuttal Testimony, as Schedule JDG-1 is a 48-month
2 analysis, from January 2007 through December 31, 2010, of the Company's historical bad
3 debts and historical retail revenue levels for MAWC, incorporating information for the
4 original 12 MAWC operating districts. Staff did not provide an analysis for the newly
5 acquired districts due to the lack of the necessary information. Staff reviewed the changes or
6 variations that occurred between water or sewer retail revenues and actual historical bad debt
7 write-offs. As shown in Schedule JDG-1, Staff's analysis does not support MAWC's position
8 that there is always a proportional or corresponding direct relationship between revenues and
9 bad debt expense; whereby any revenue increase will always result in an automatic increase in
10 bad debt expense in the same magnitude and proportion. Even in situations where revenues
11 and bad debts tended to go in the same direction, Staff observed that they either increased or
12 decreased by different, but not complimentary amounts. This situation does not support the
13 argument that bad debt write-offs and revenues have a proportional or parallel relationship.

14 Q. How did Staff review MAWC's 48-month relationship of bad debt expense to
15 sales revenue?

16 A. Staff utilized both numerical and graphical presentations in its review. Neither
17 presentation produced any substantive evidence to support the direct relationship that must
18 exist between the two items to justify inclusion of a bad debt gross-up in this case.

19 Q. Does the bad debt factor-up proposed by MAWC work in the same way as an
20 income tax factor-up?

21 A. Yes. The income tax factor-up assumes that for every dollar of increase in a
22 utility's earnings from a rate case there will be a direct and absolute proportional increase in
23 income taxes. This is a well-known and established relationship, and in this case both the

1 Company and Staff have applied an income tax factor-up to the additional revenue
2 requirement calculation to determine the proper level of rate increase to recommend in this
3 case. If the Commission authorizes a rate increase in this proceeding, then a corresponding
4 income tax amount will have to be added to the additional revenue requirement amount, or the
5 Company may not be able to recover the authorized amount of increase in its revenue
6 requirement. However, it is clear from Staff's analysis that no such direct relationship exists
7 between increased revenues and increased bad debt expense as compared to the relationship
8 between increased revenues and increased income tax expense.

9 Q. On what basis did Staff calculate its recommended level of bad debt expense
10 for MAWC in this case?

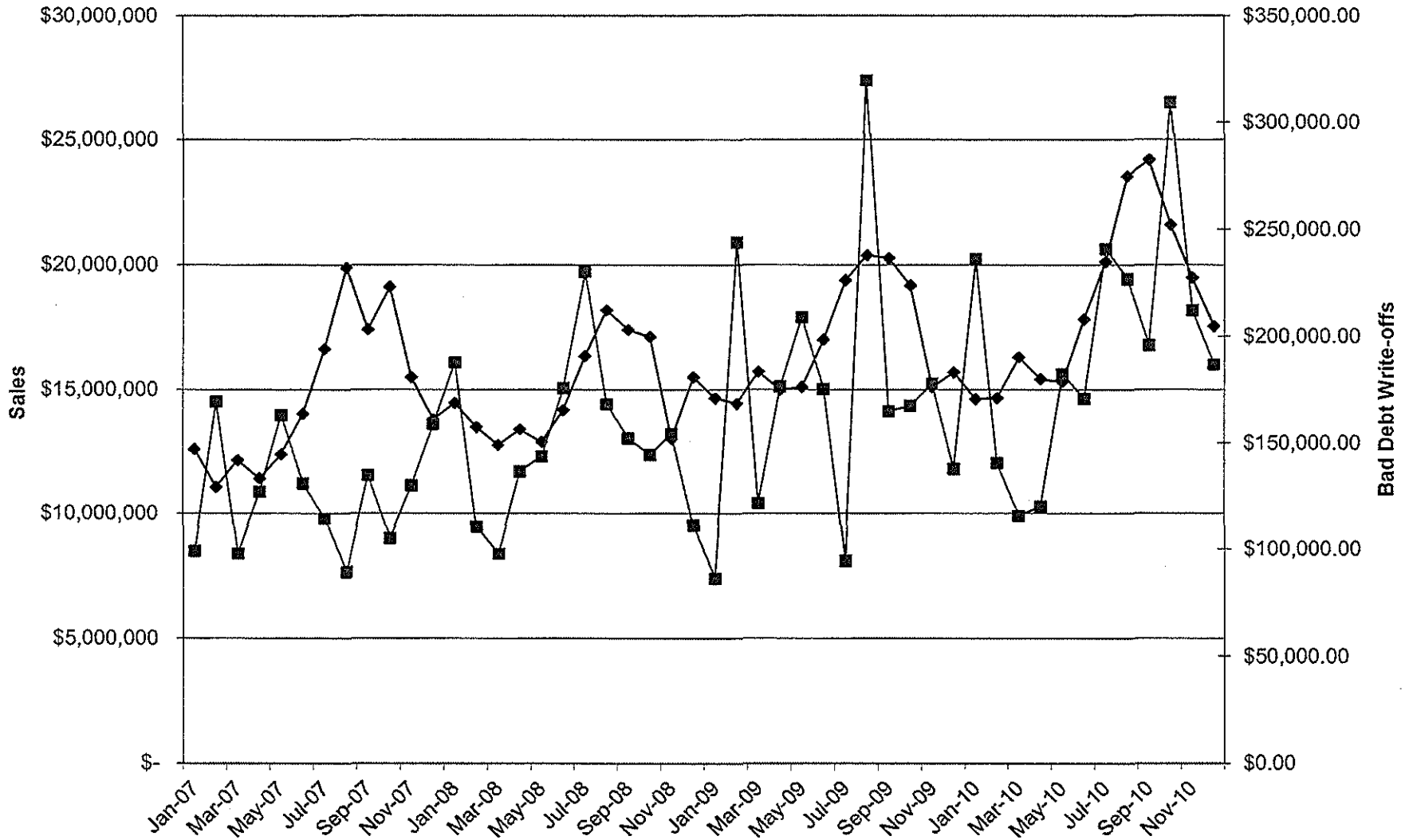
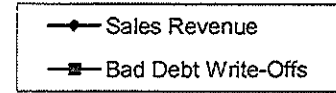
11 A. Staff's current position on MAWC's bad debt expense is to include a
12 normalized level of bad debt expense in this case, based on an historical analysis of actual
13 MAWC data, which showed that no direct correlation exists between revenue increases and
14 increases in bad debt expense. Staff's adjustment for the newly acquired districts remained at
15 test year level.

16 Q. Does this conclude your Rebuttal Testimony?

17 A. Yes, it does.

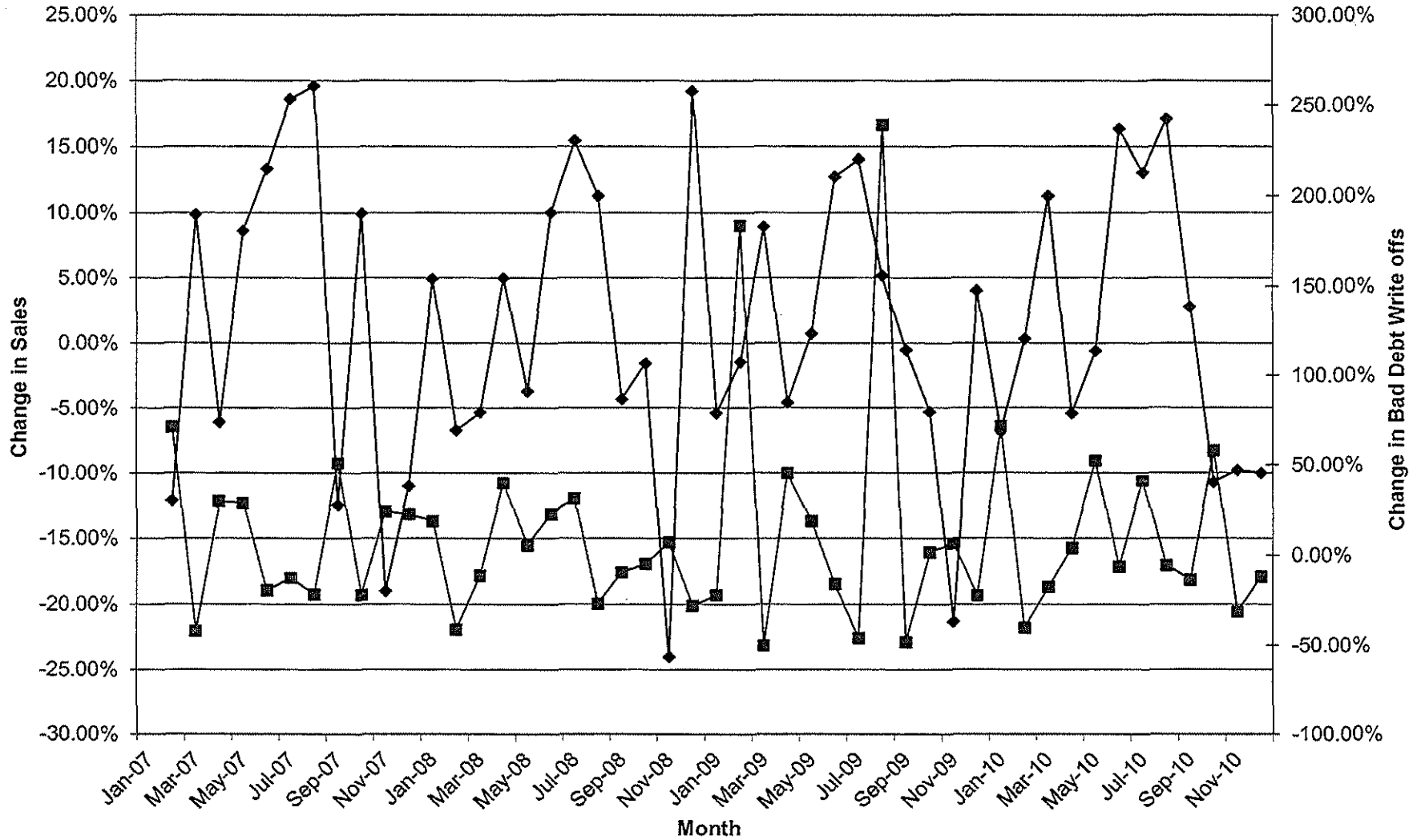
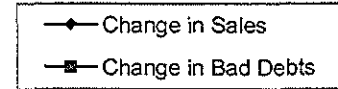
MAWC
Case No. WR-2011-0337

MAWC - Total Company
Monthly Change in Sales Revenue to Change in Bad Debt



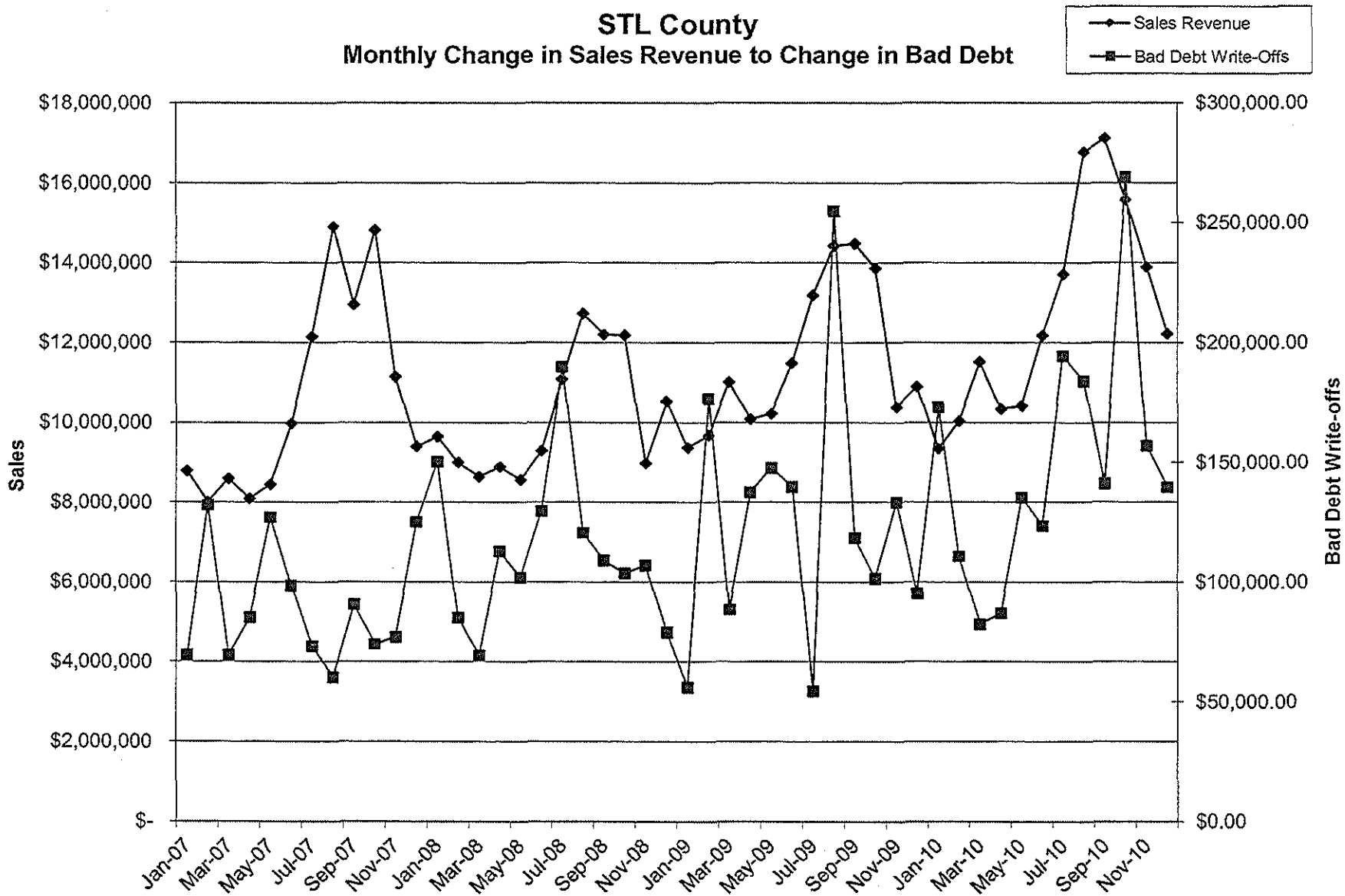
MAWC
Case No. WR-2011-0337

MAWC - Total Company
Monthly Change in Sales Revenue to Change in Bad Debt

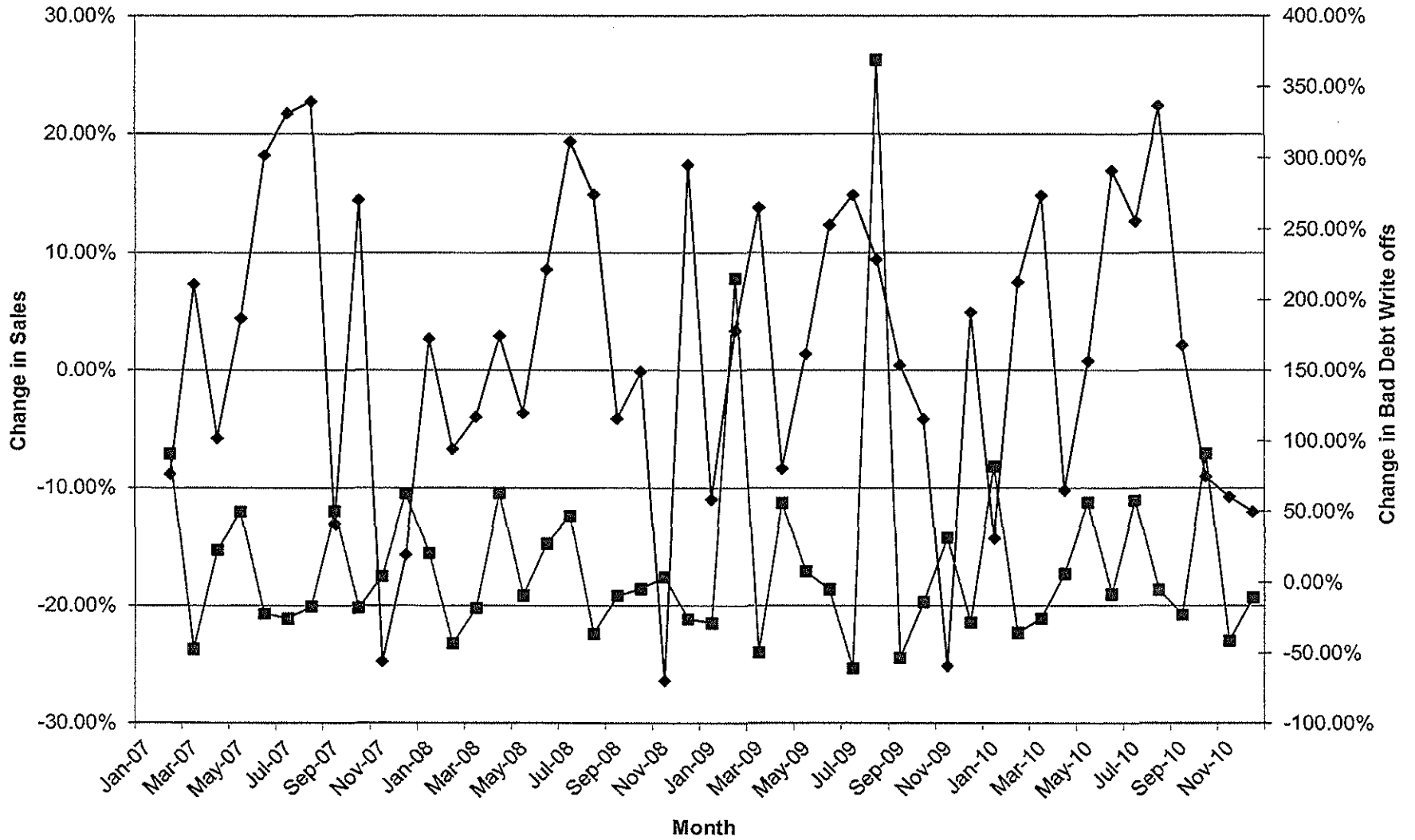
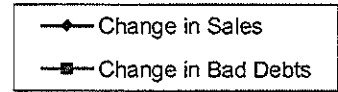


MAWC
Case No. WR-2011-0337

STL County
Monthly Change in Sales Revenue to Change in Bad Debt

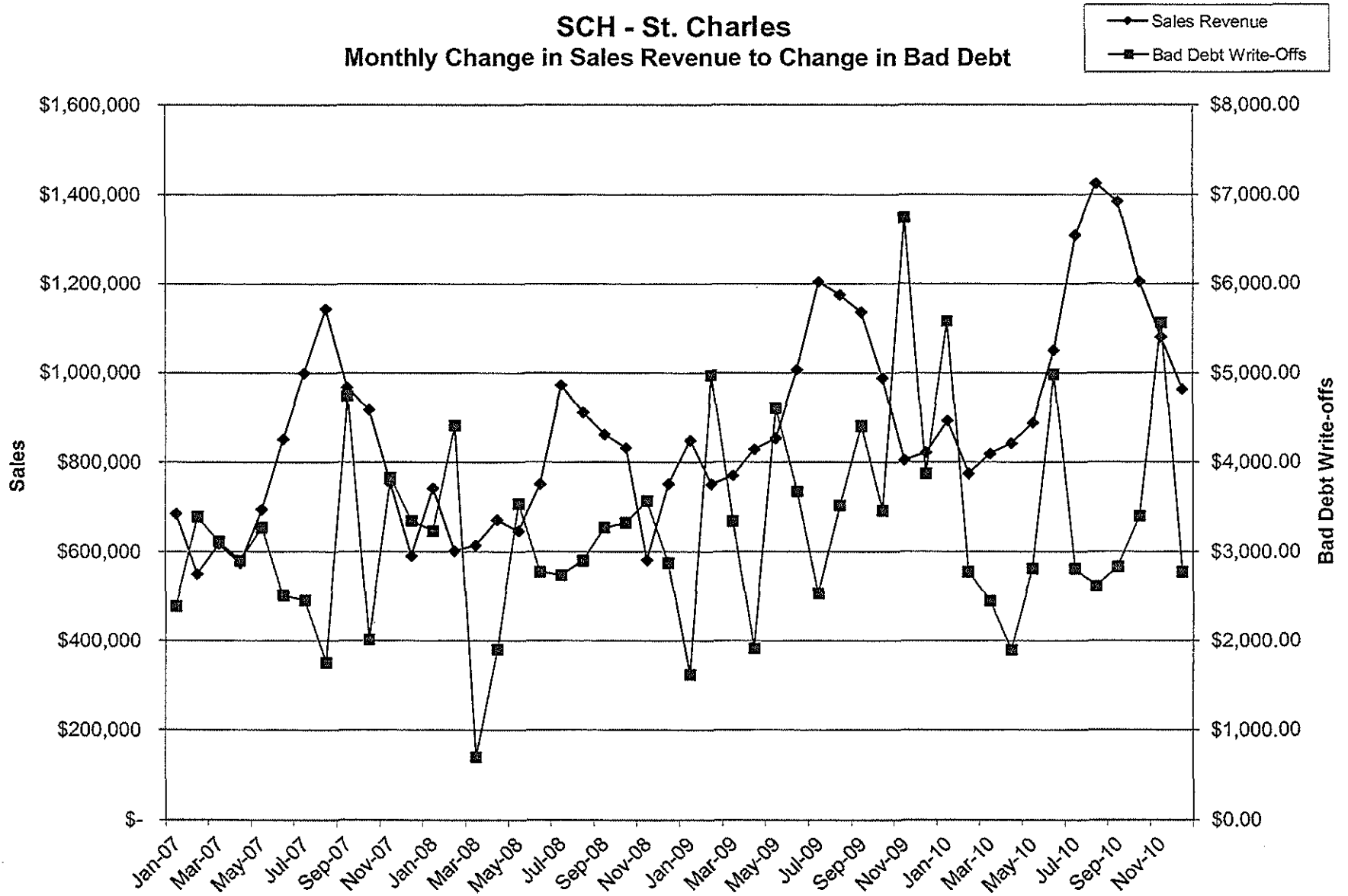


STL County
Monthly Change in Sales Revenue to Change in Bad Debt

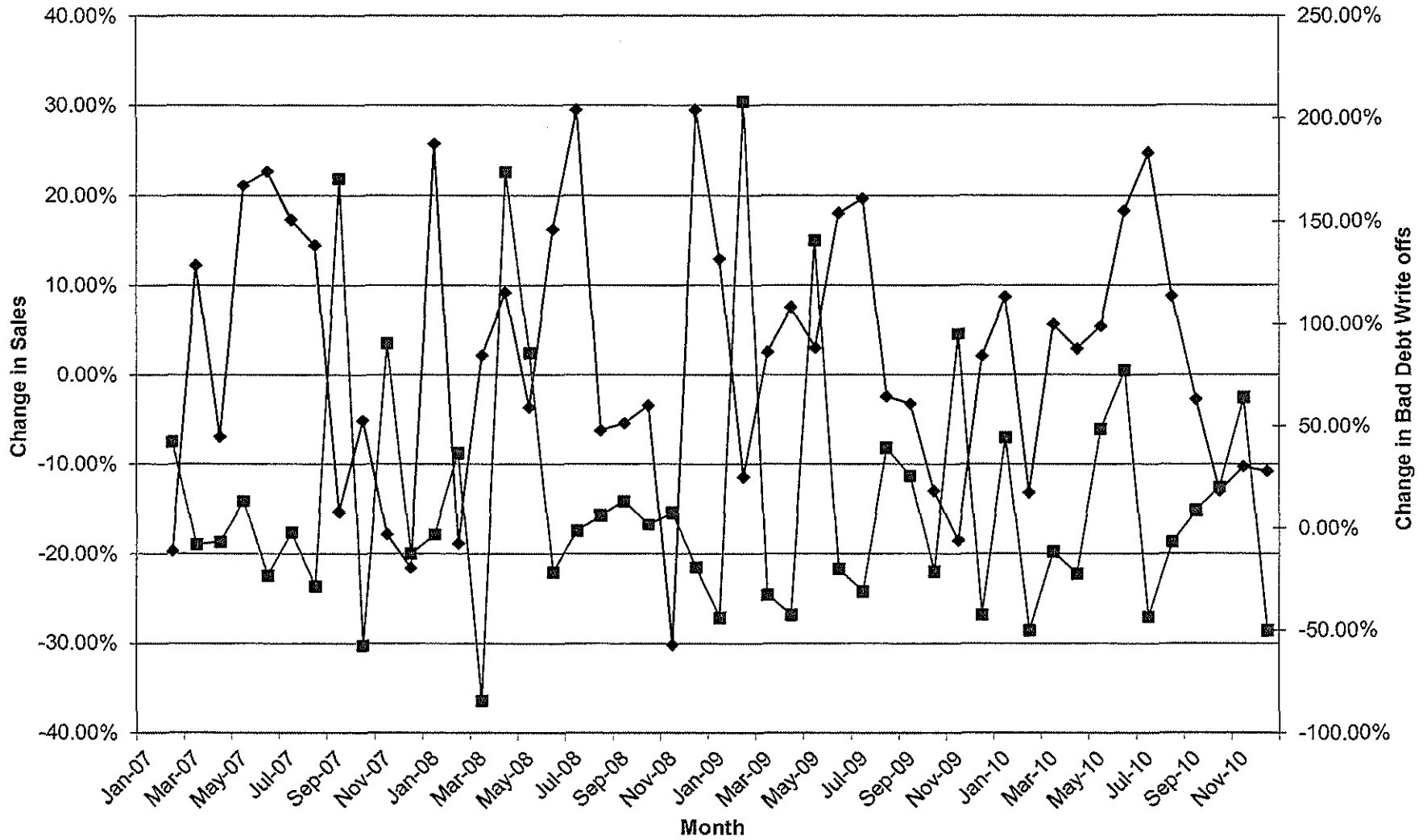
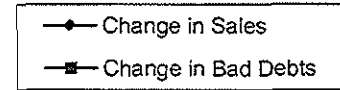


MAWC
Case No. WR-2011-0337

SCH - St. Charles
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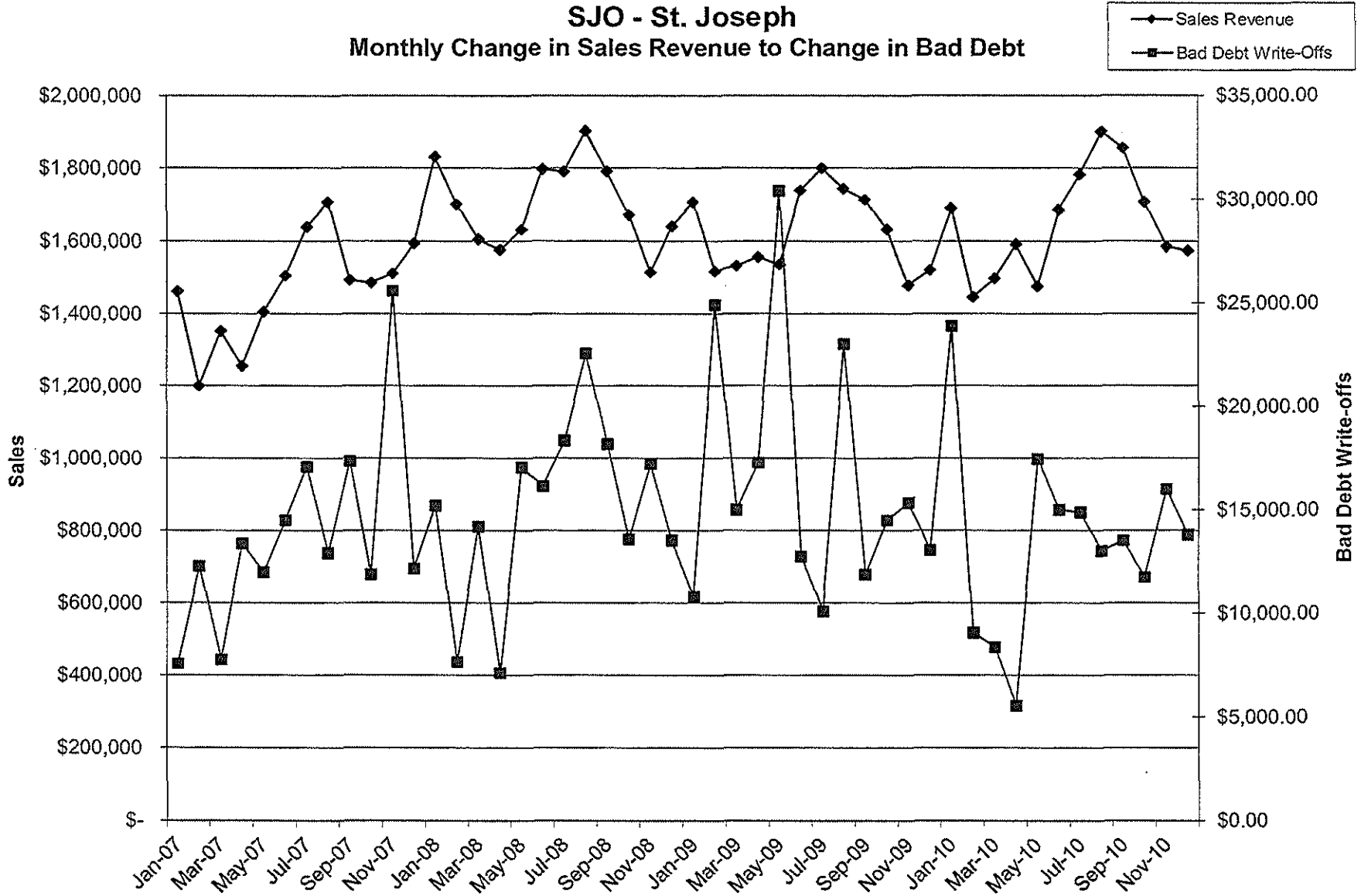


SCH - St. Charles
Monthly Change in Sales Revenue to Change in Bad Debt

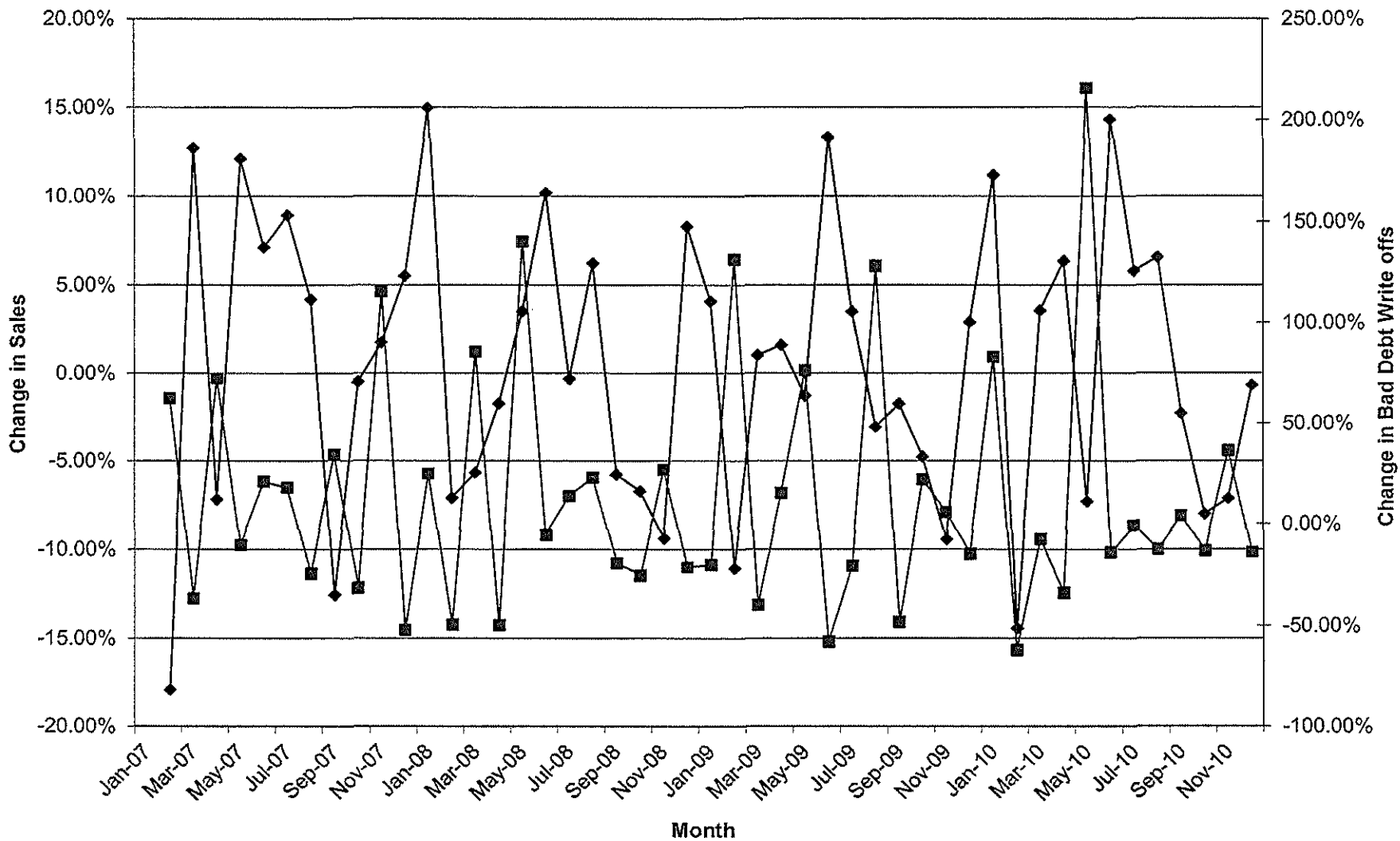
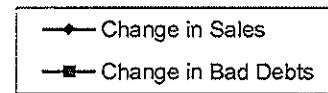


MAWC
Case No. WR-2011-0337

SJO - St. Joseph
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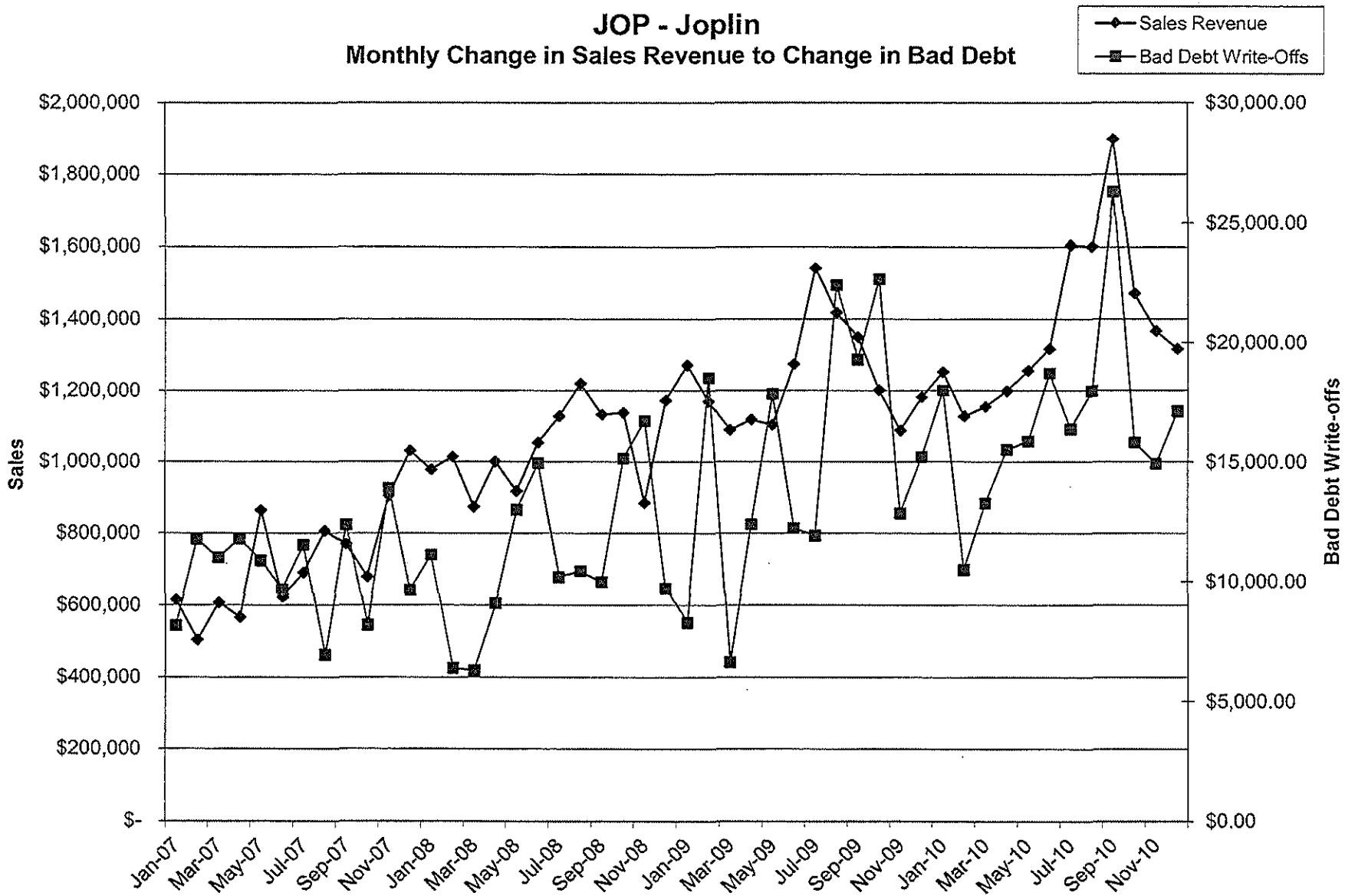


SJO - St. Joseph
Monthly Change in Sales Revenue to Change in Bad Debt

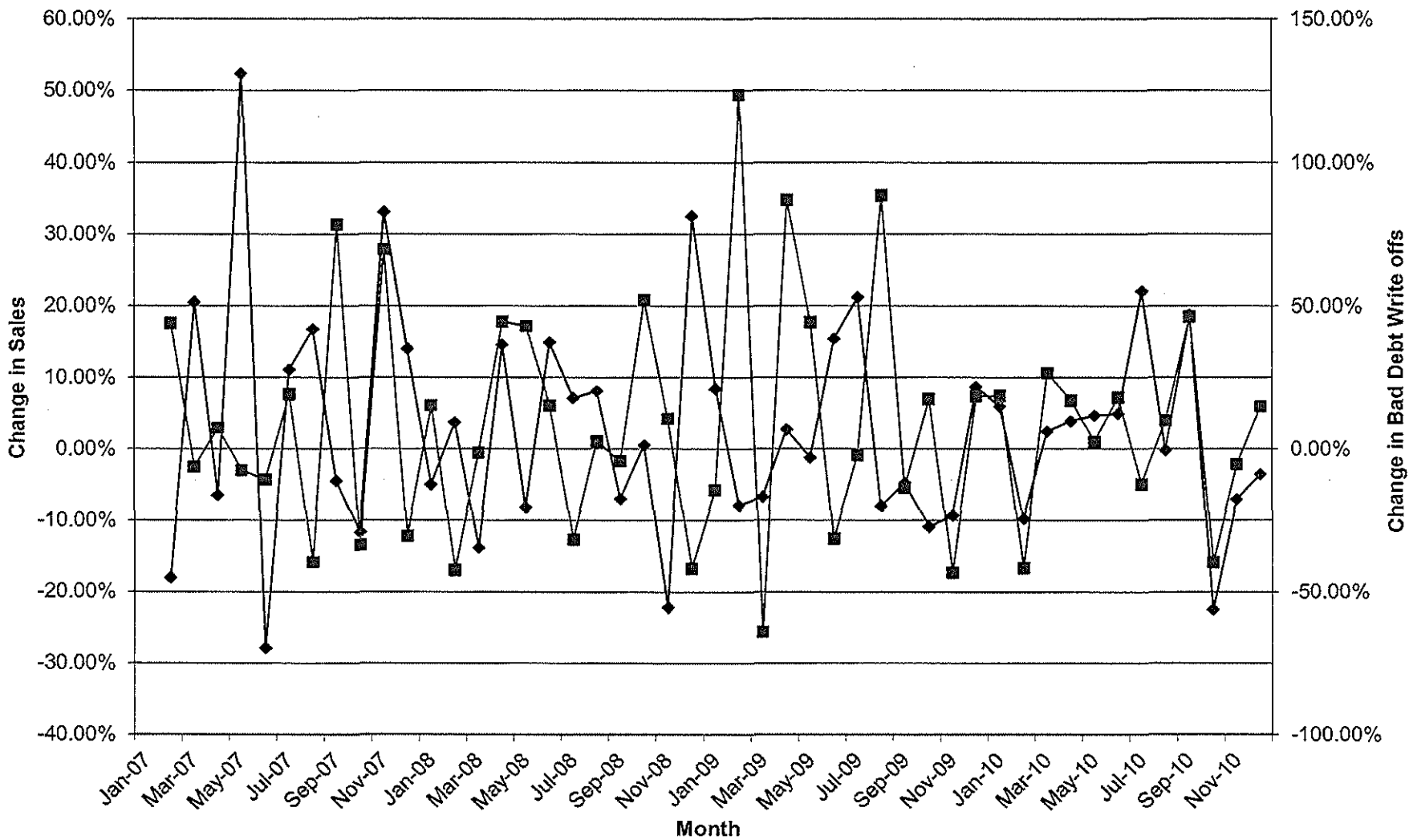
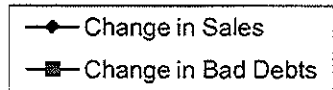


MAWC
Case No. WR-2011-0337

JOP - Joplin
Monthly Change in Sales Revenue to Change in Bad Debt

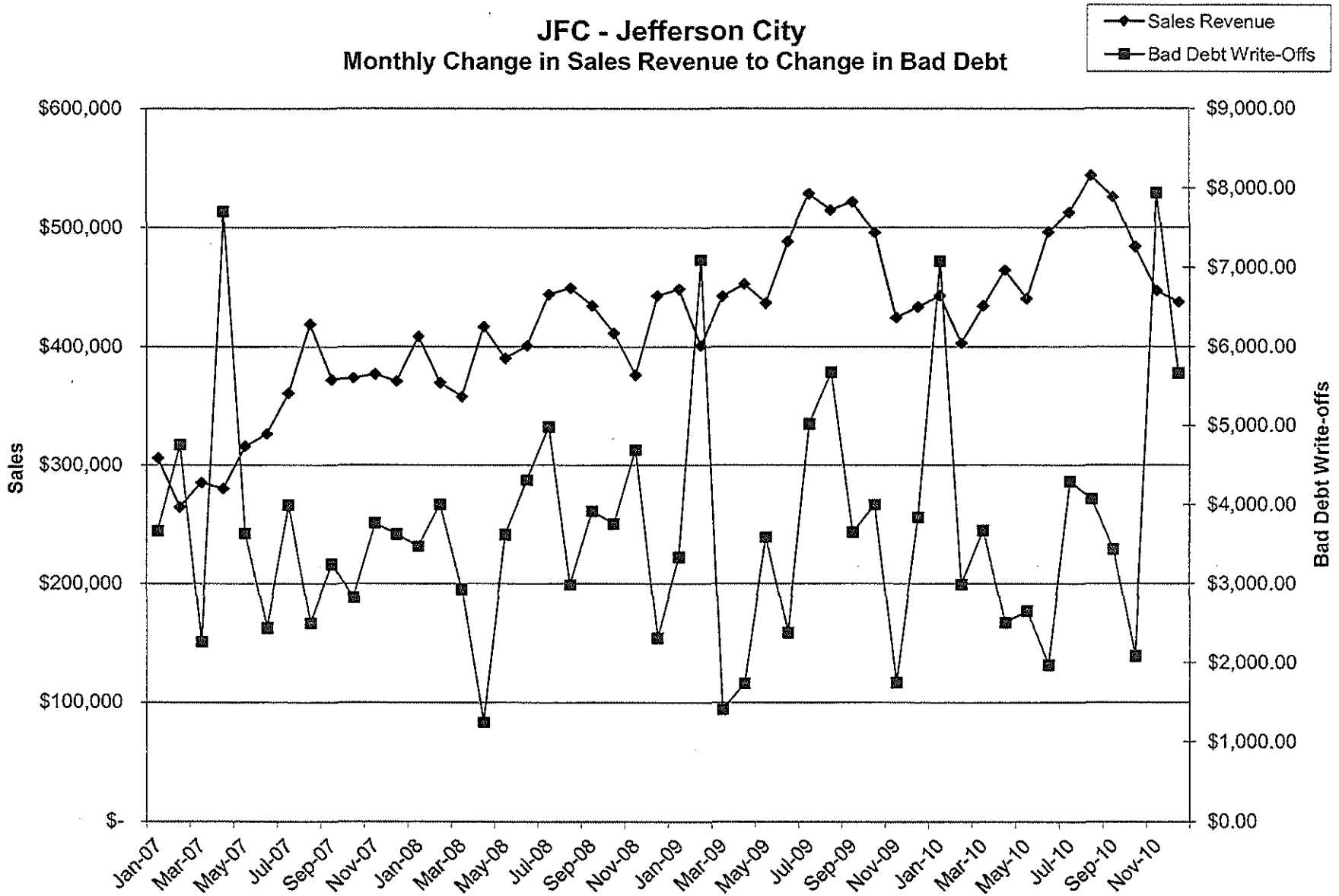


JOP - Joplin
Monthly Change in Sales Revenue to Change in Bad Debt

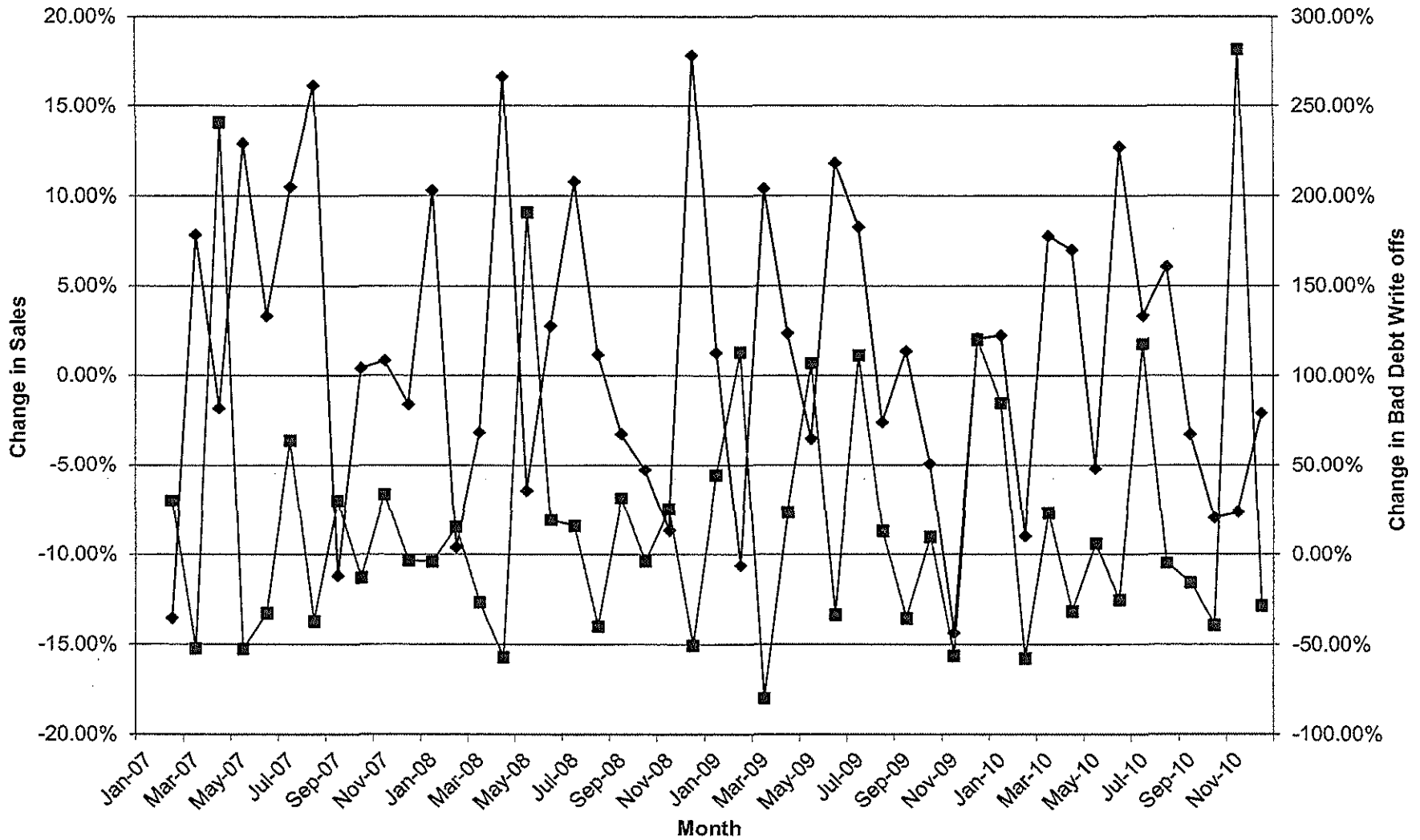
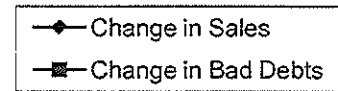


MAWC
Case No. WR-2011-0337

JFC - Jefferson City
Monthly Change in Sales Revenue to Change in Bad Debt

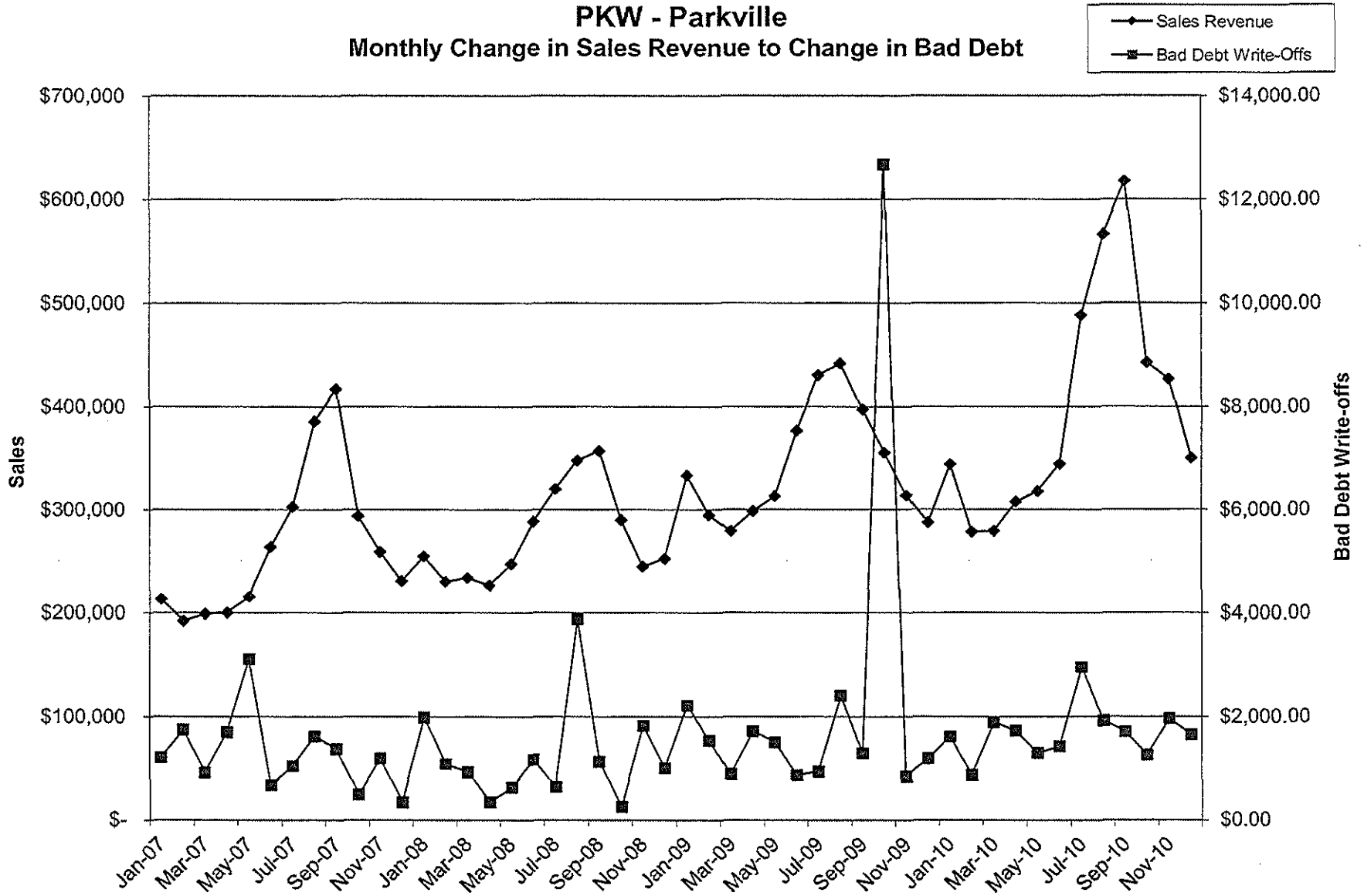


JFC - Jefferson City
Monthly Change in Sales Revenue to Change in Bad Debt

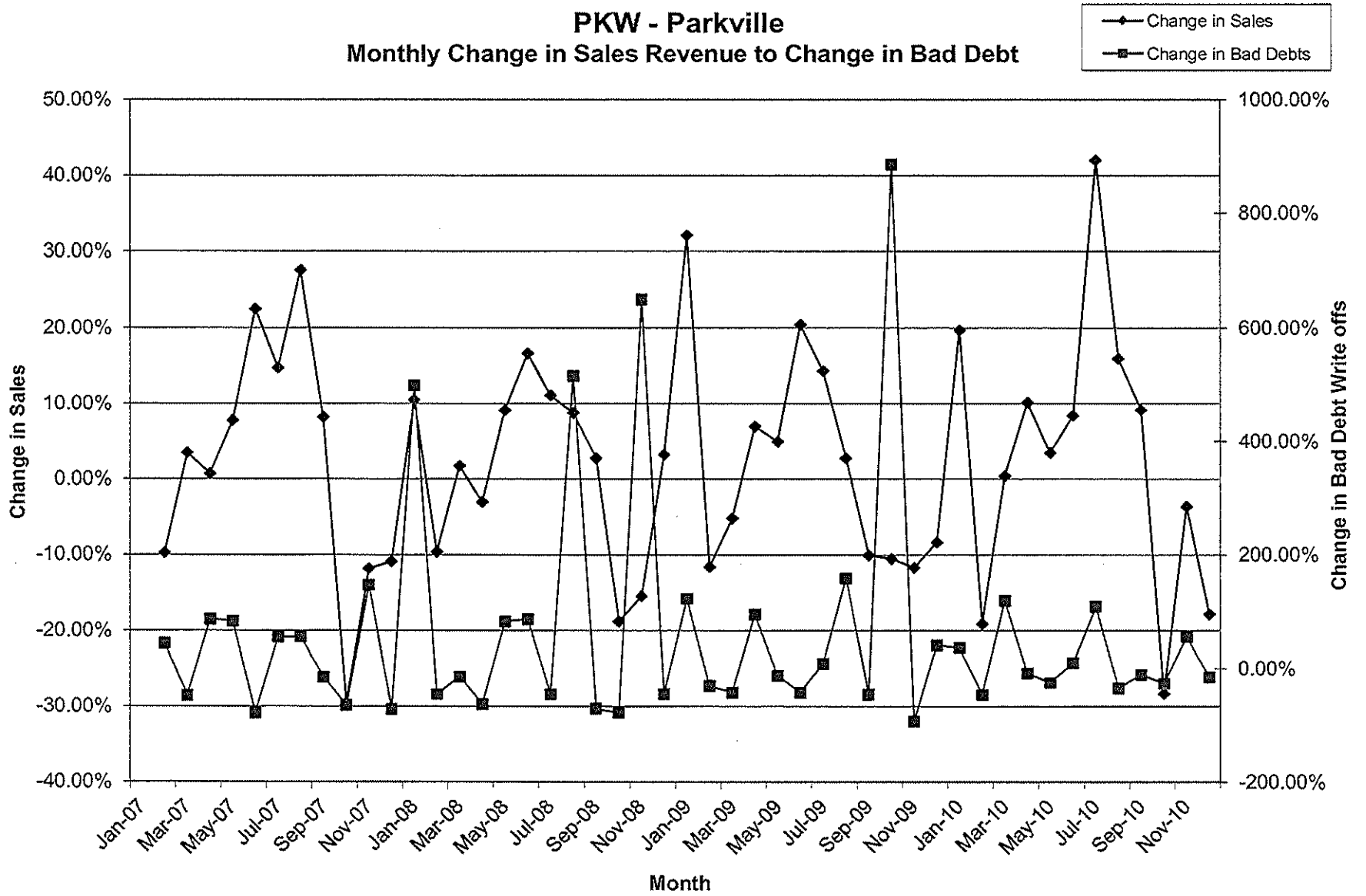


MAWC
Case No. WR-2011-0337

PKW - Parkville
Monthly Change in Sales Revenue to Change in Bad Debt

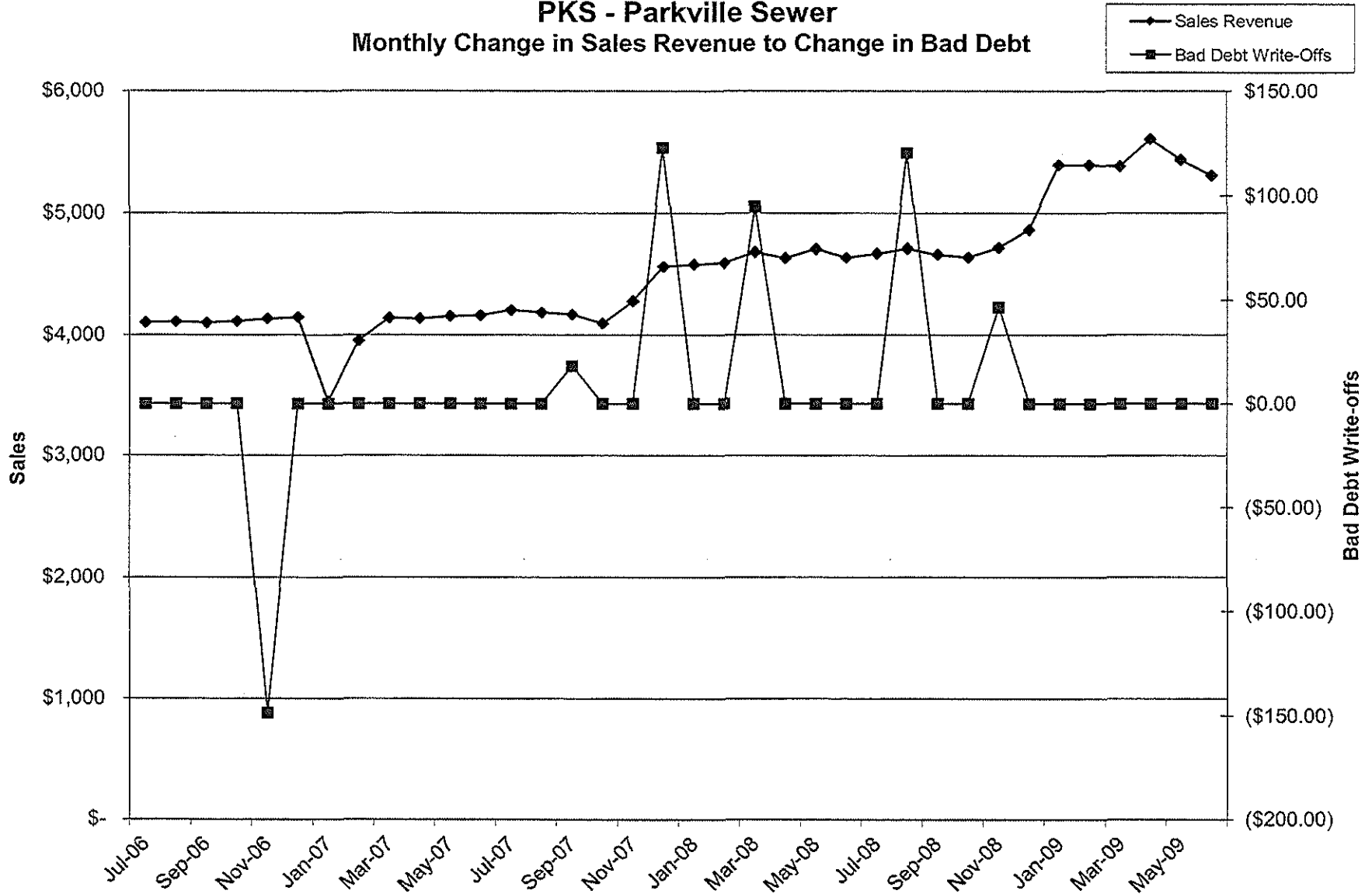


PKW - Parkville
Monthly Change in Sales Revenue to Change in Bad Debt

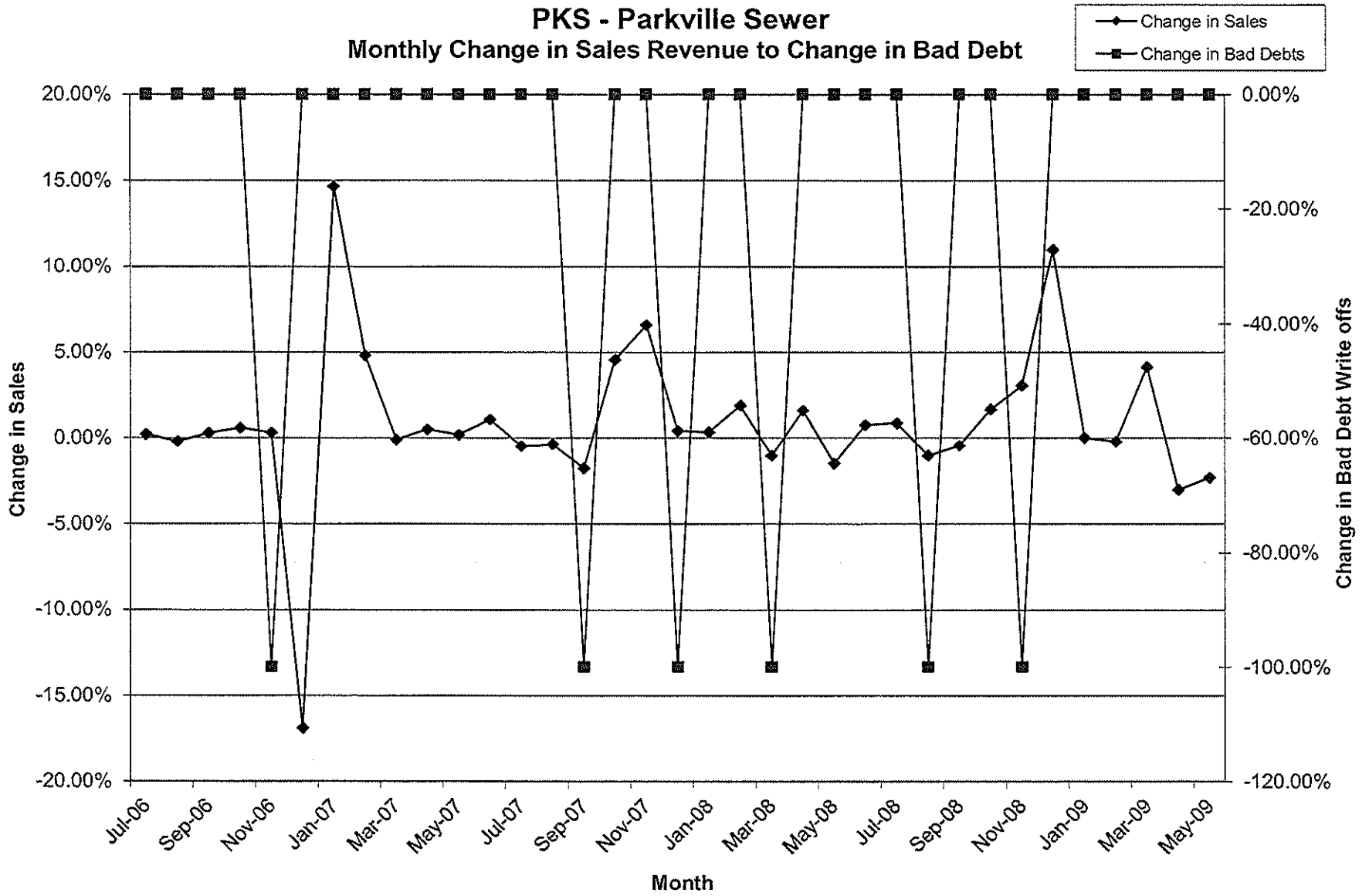


MAWC
Case No. WR-2011-0337

PKS - Parkville Sewer
Monthly Change in Sales Revenue to Change in Bad Debt

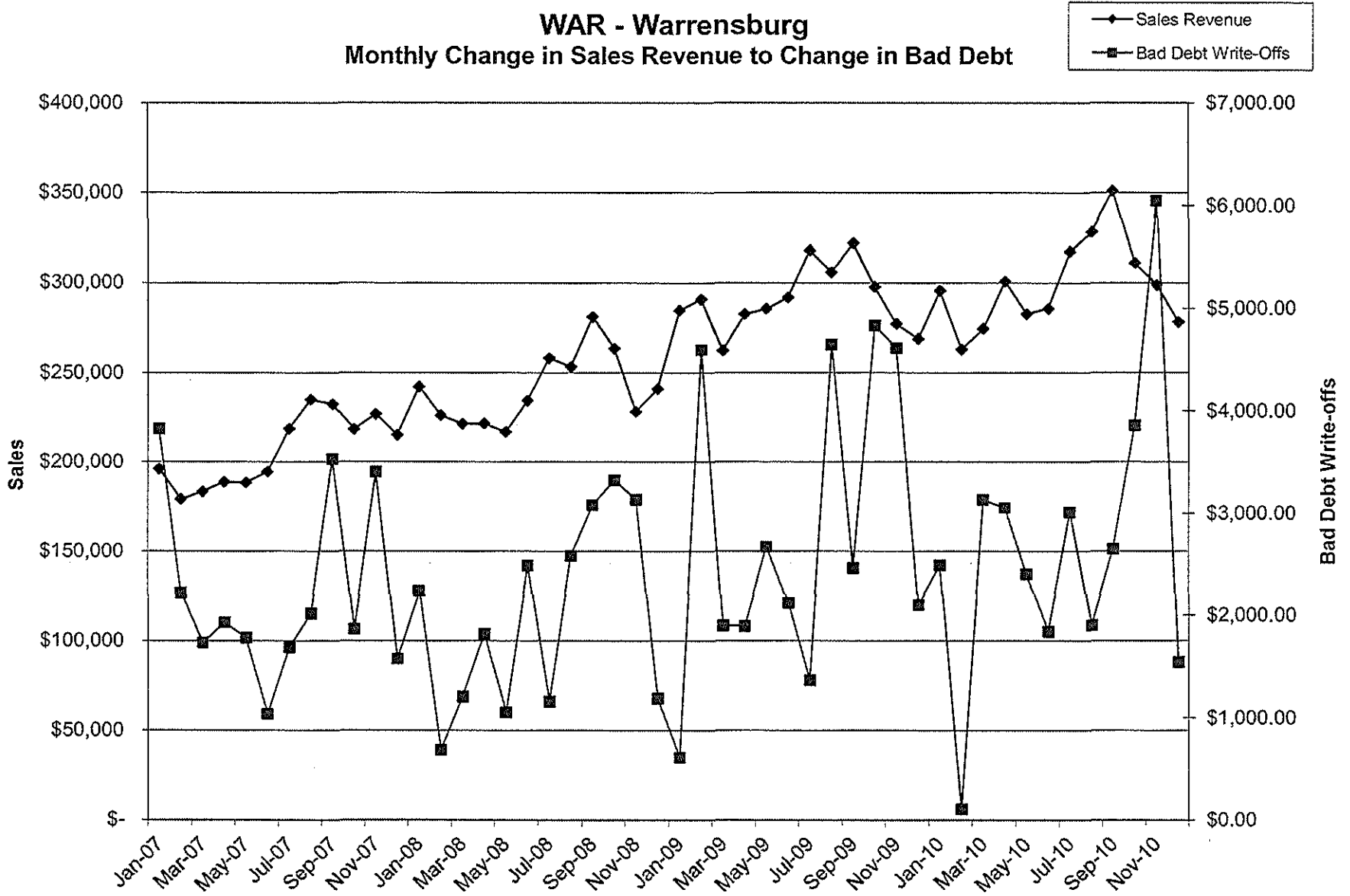


PKS - Parkville Sewer
Monthly Change in Sales Revenue to Change in Bad Debt

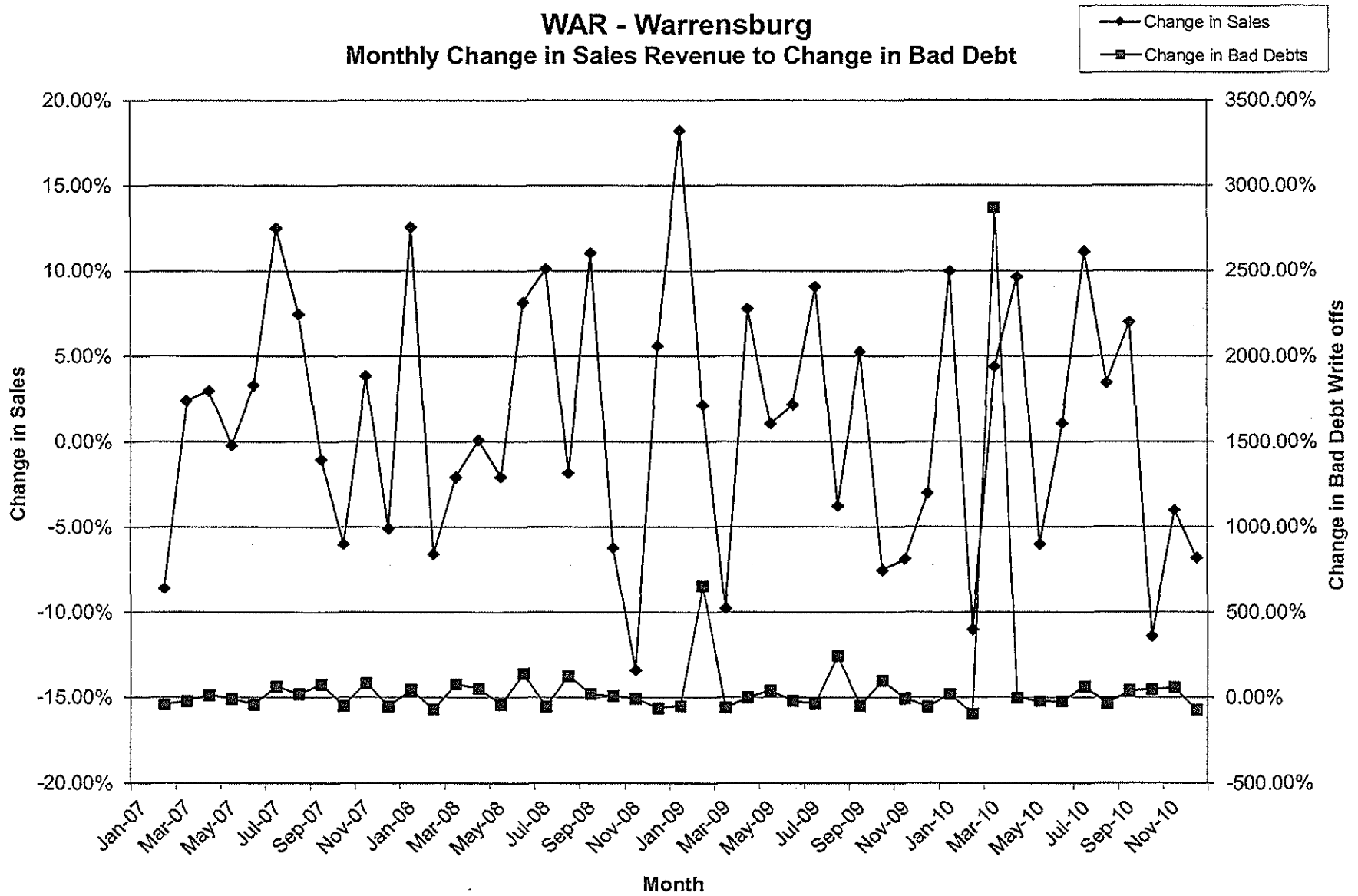


MAWC
Case No. WR-2011-0337

WAR - Warrensburg
Monthly Change in Sales Revenue to Change in Bad Debt

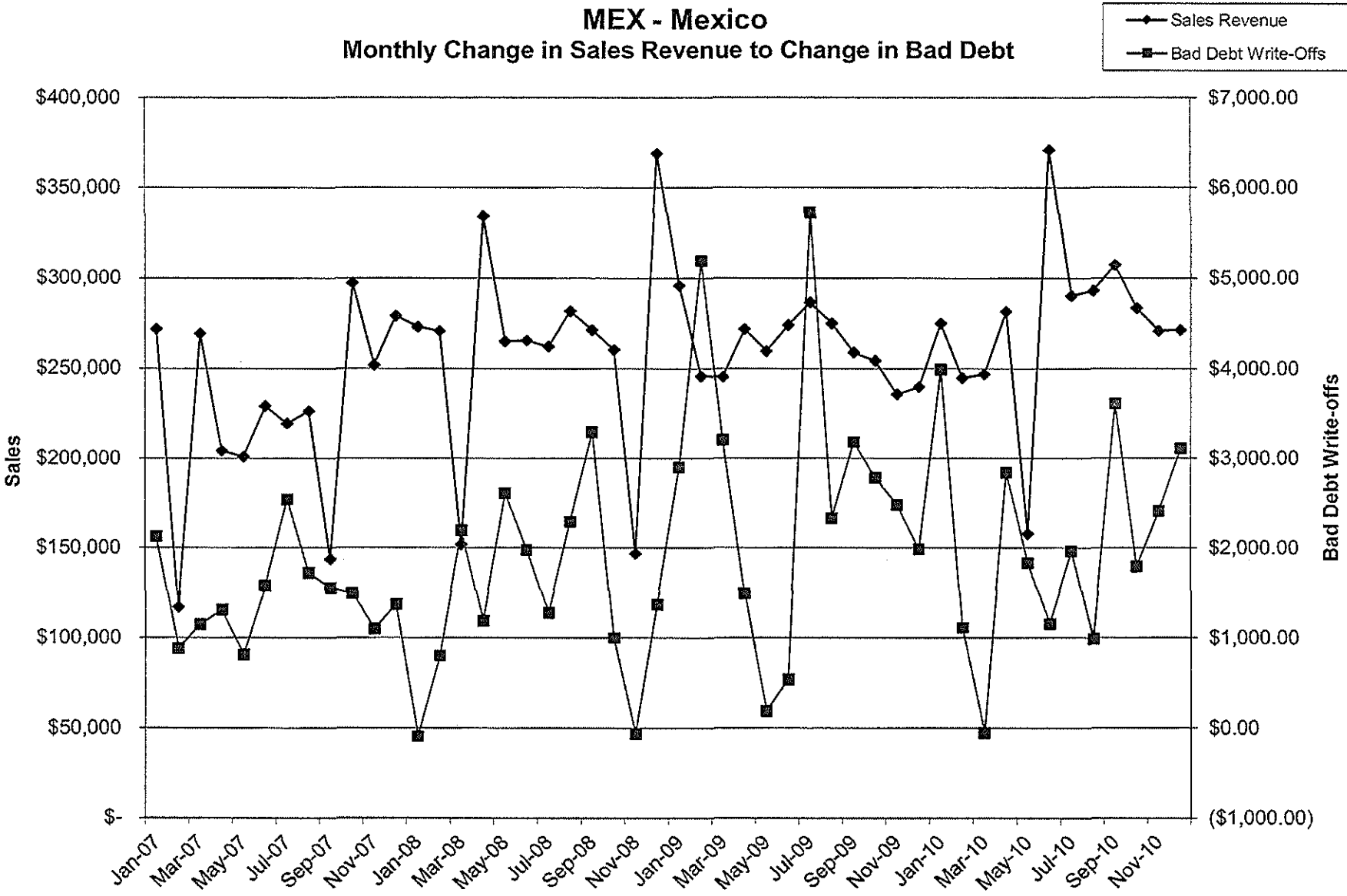


WAR - Warrensburg
Monthly Change in Sales Revenue to Change in Bad Debt

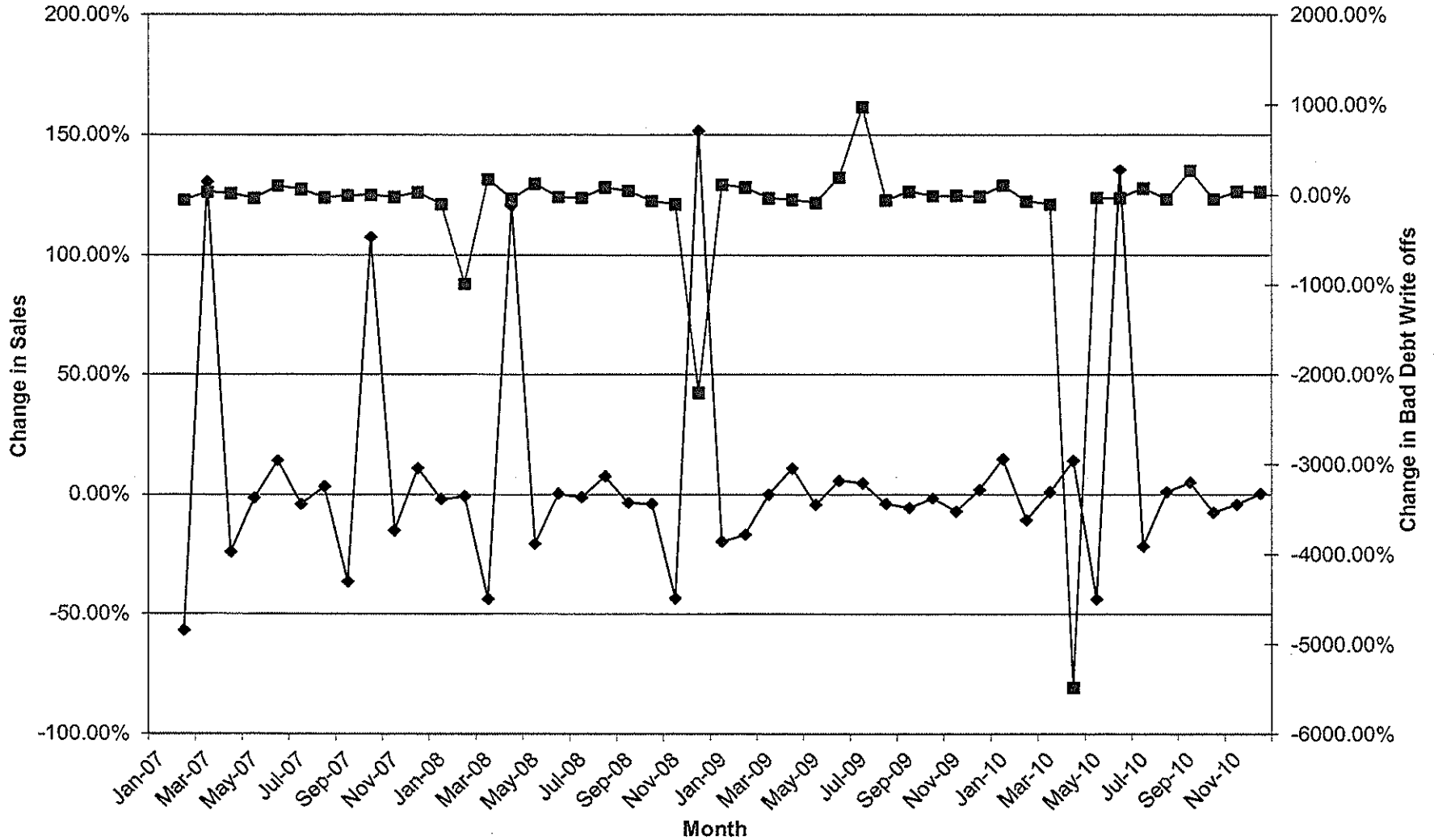
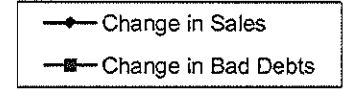


MAWC
Case No. WR-2011-0337

MEX - Mexico
Monthly Change in Sales Revenue to Change in Bad Debt

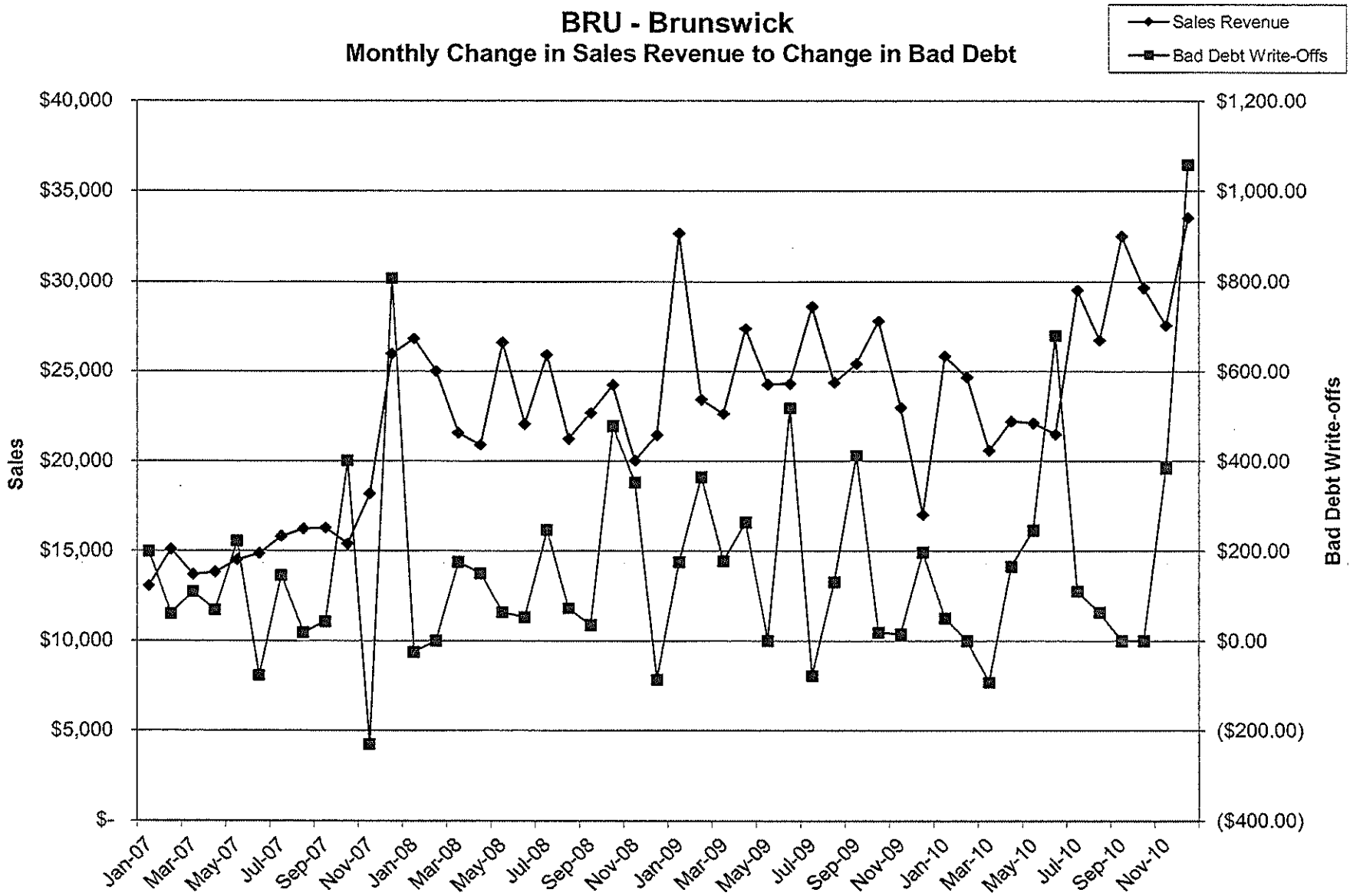


MEX - Mexico
Monthly Change in Sales Revenue to Change in Bad Debt

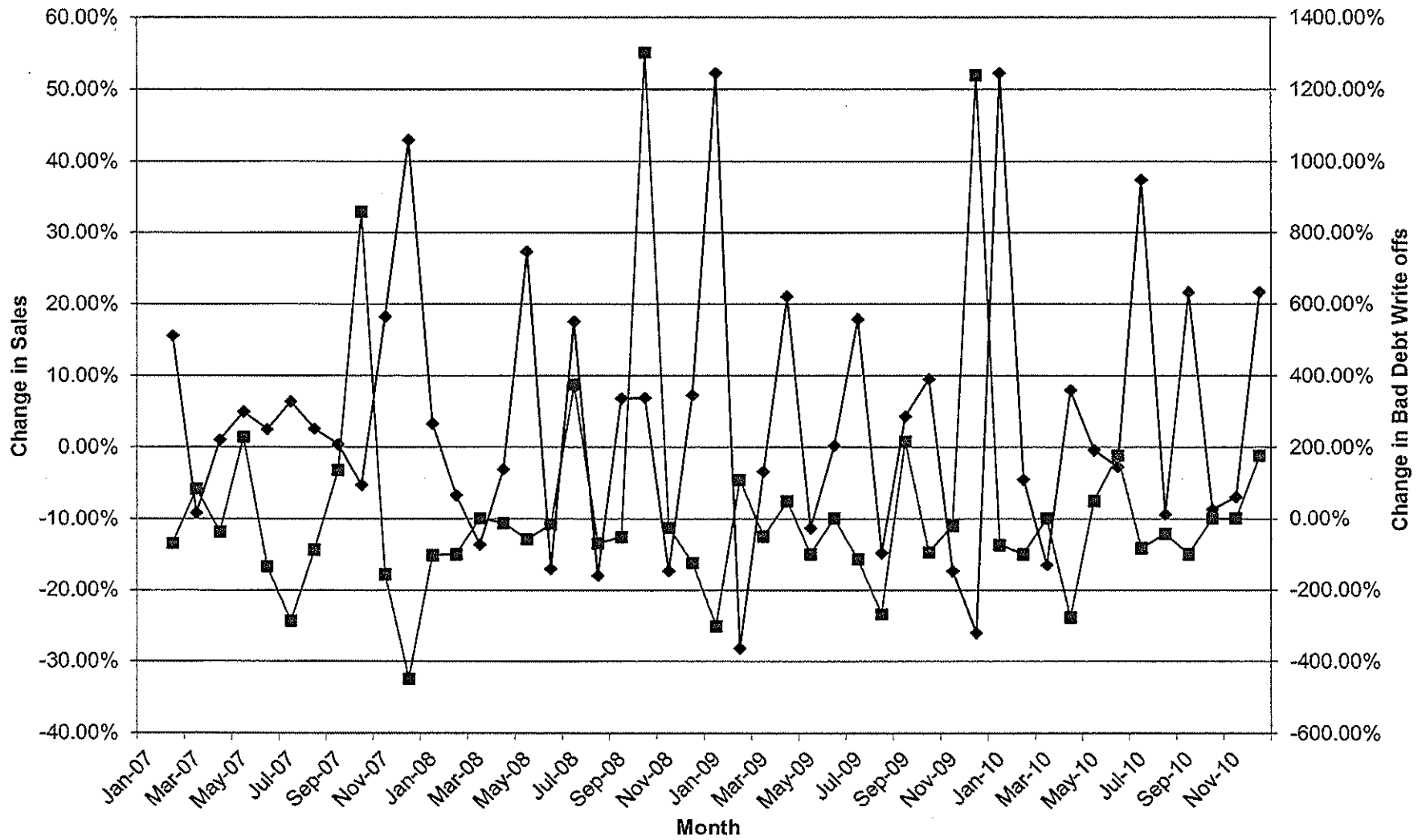
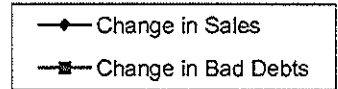


MAWC
Case No. WR-2011-0337

BRU - Brunswick
Monthly Change in Sales Revenue to Change in Bad Debt

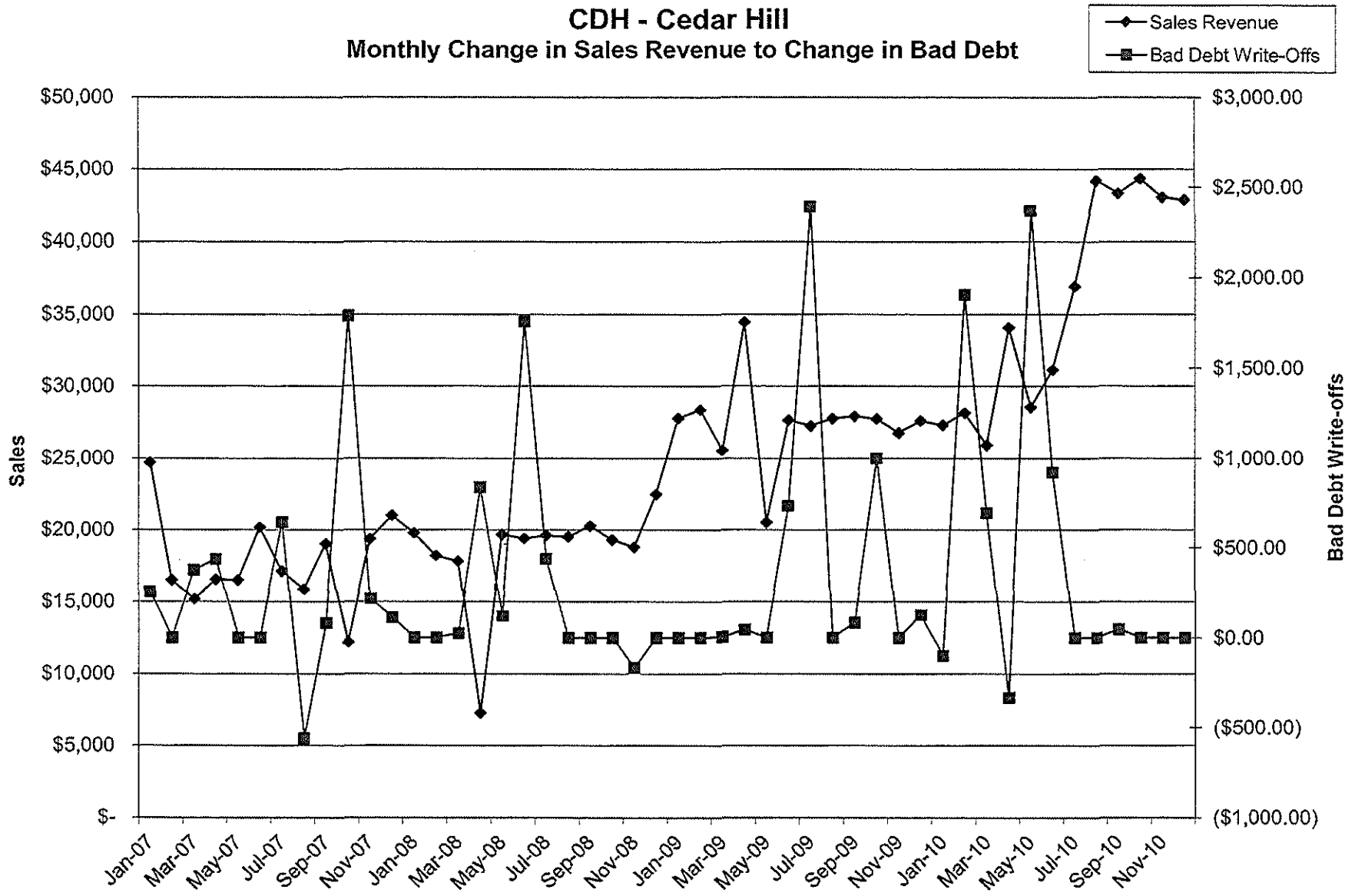


BRU - Brunswick
Monthly Change in Sales Revenue to Change in Bad Debt

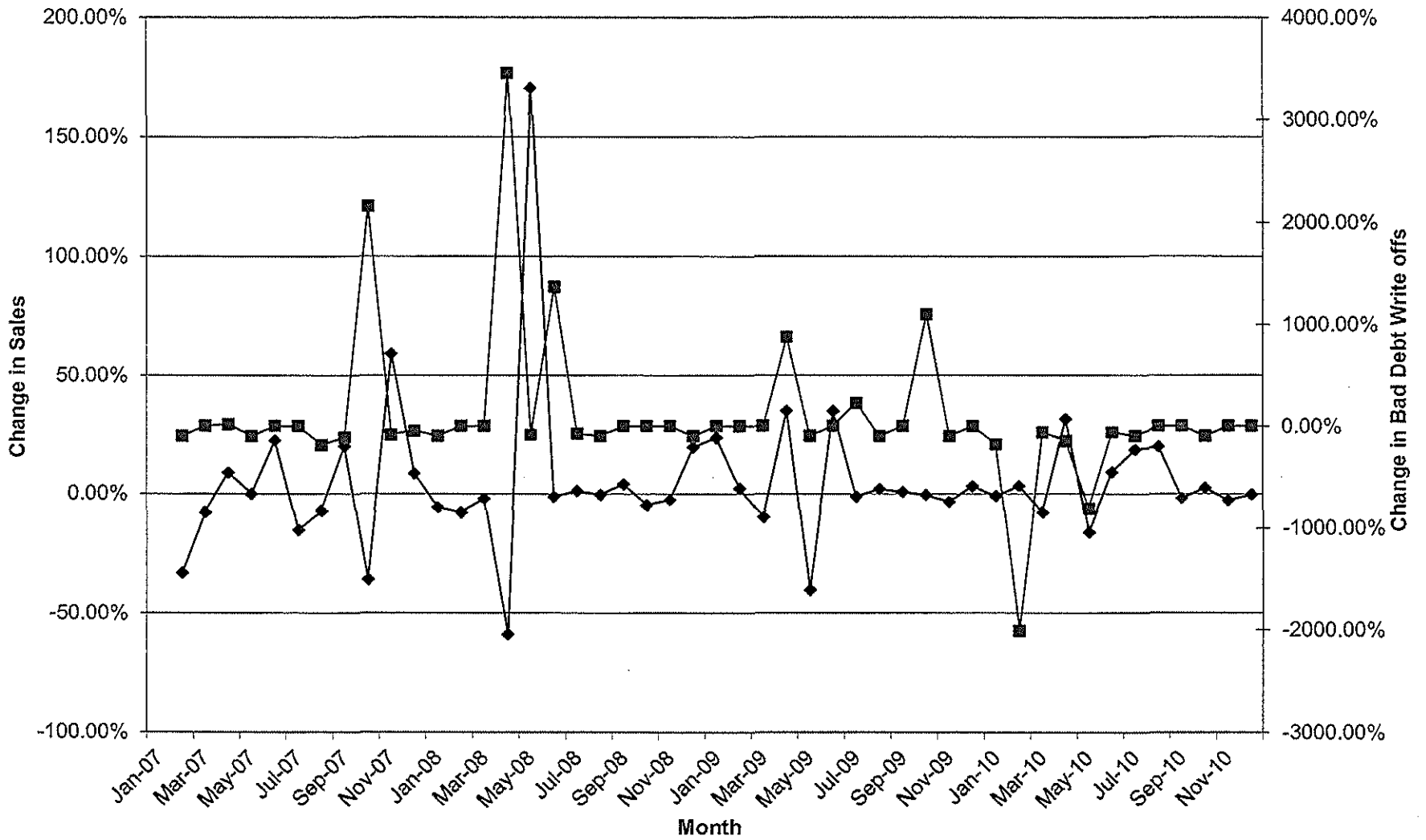
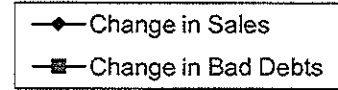


MAWC
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CDH - Cedar Hill
Monthly Change in Sales Revenue to Change in Bad Debt

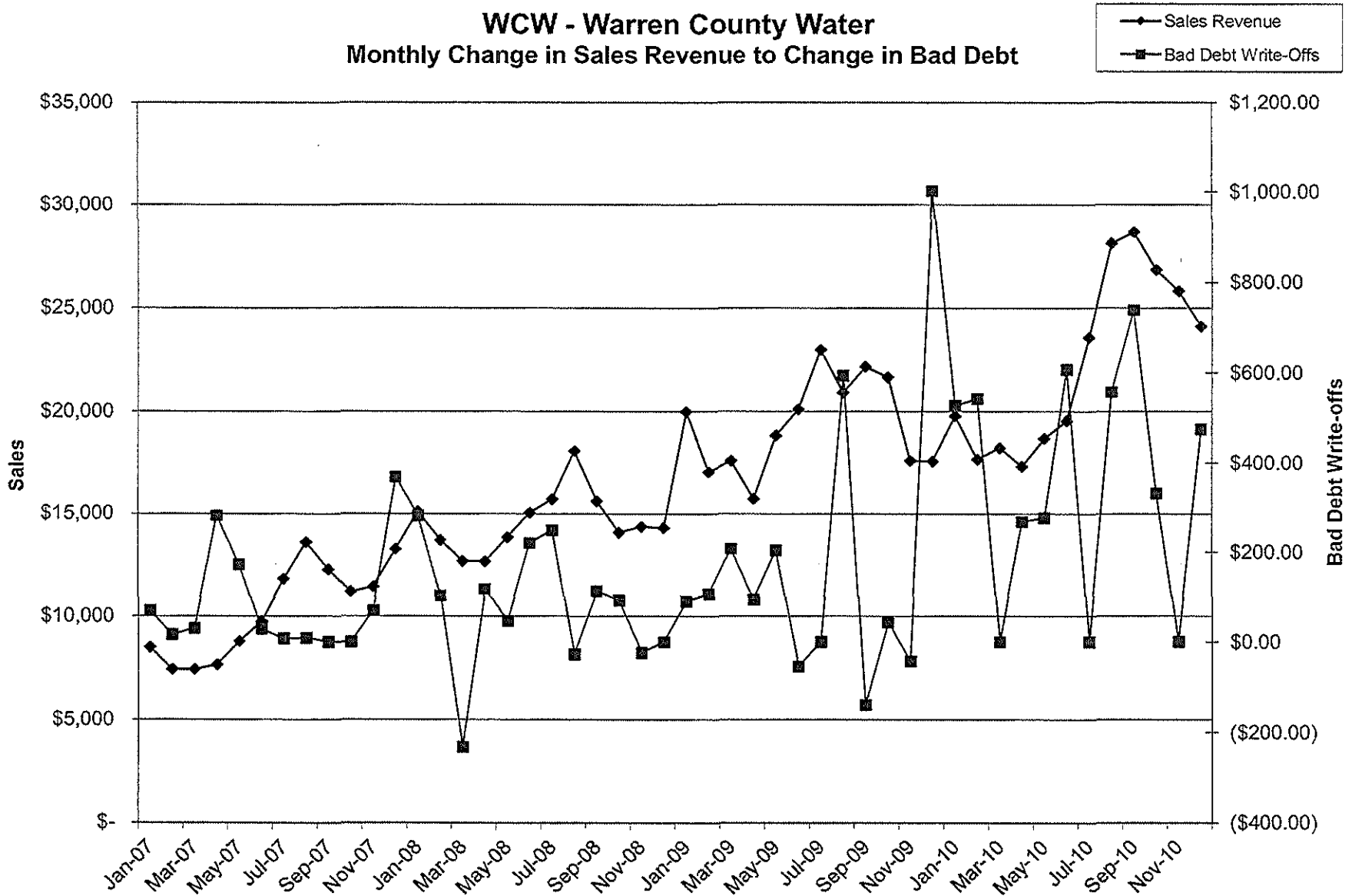


CDH - Cedar Hill
Monthly Change in Sales Revenue to Change in Bad Debt

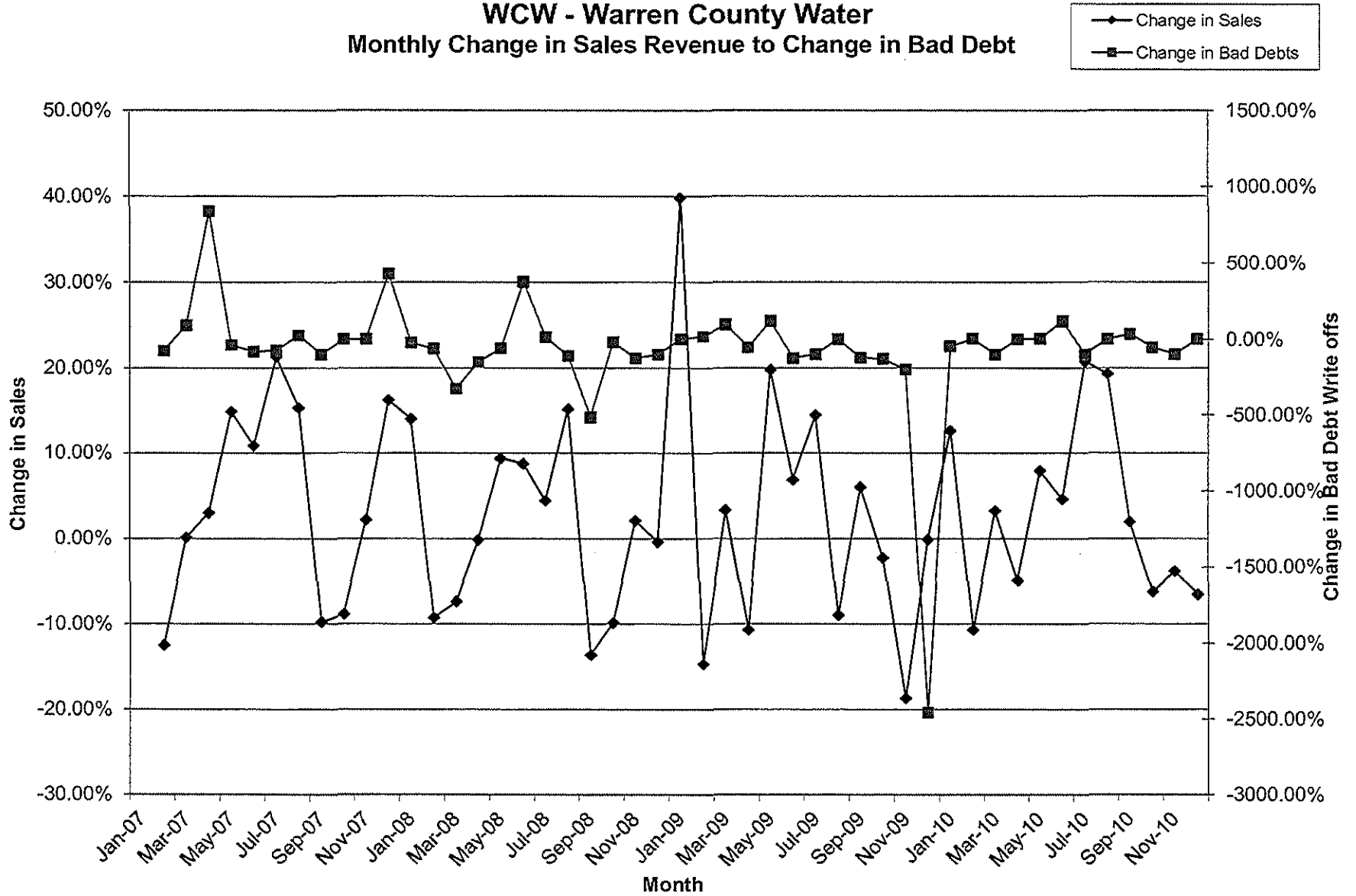


MAWC
Case No. WR-2011-0337

WCW - Warren County Water
Monthly Change in Sales Revenue to Change in Bad Debt

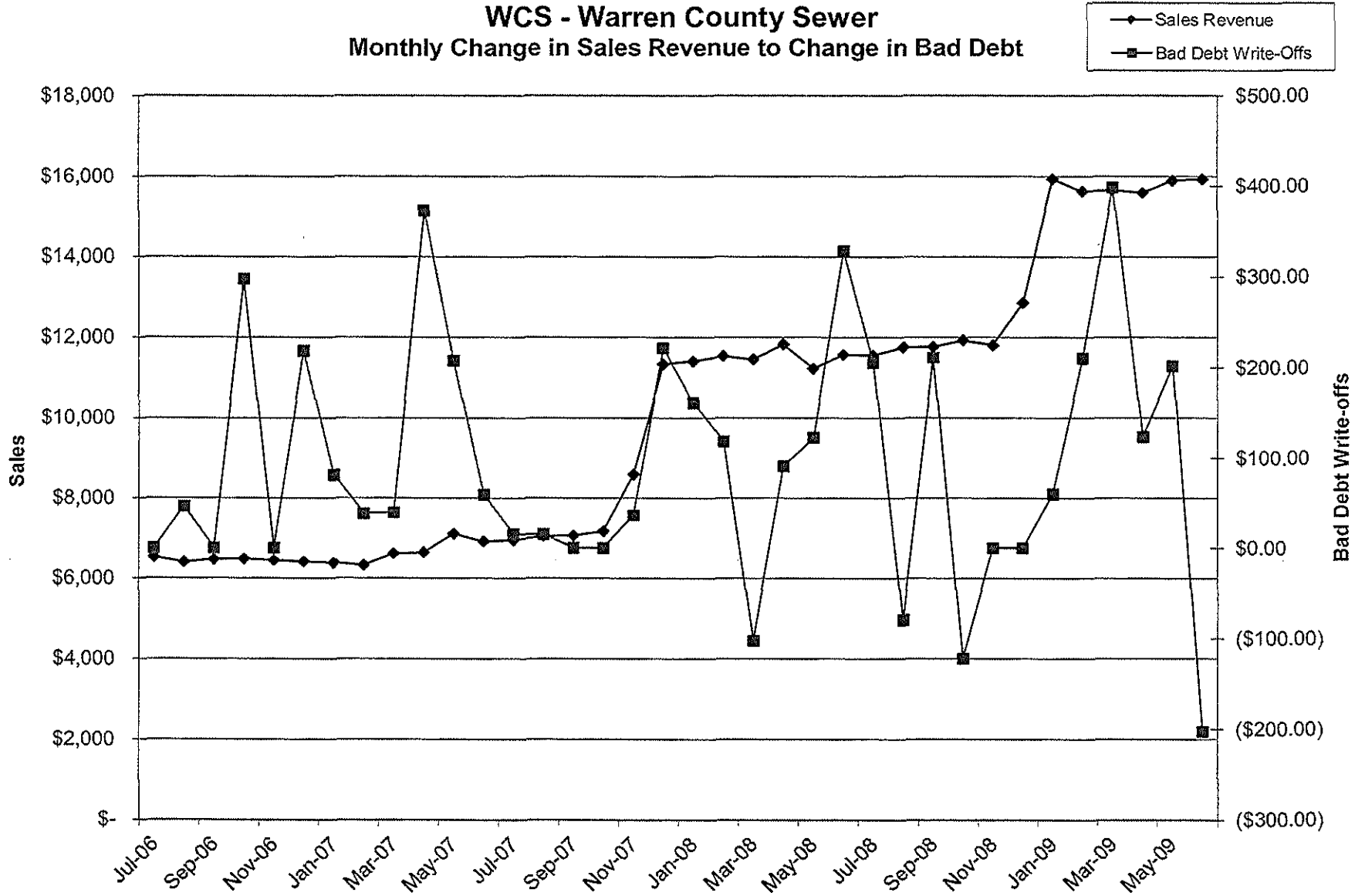


WCW - Warren County Water
Monthly Change in Sales Revenue to Change in Bad Debt



MAWC
Case No. WR-2011-0337

WCS - Warren County Sewer
Monthly Change in Sales Revenue to Change in Bad Debt



WCS - Warren County Sewer
Monthly Change in Sales Revenue to Change in Bad Debt

