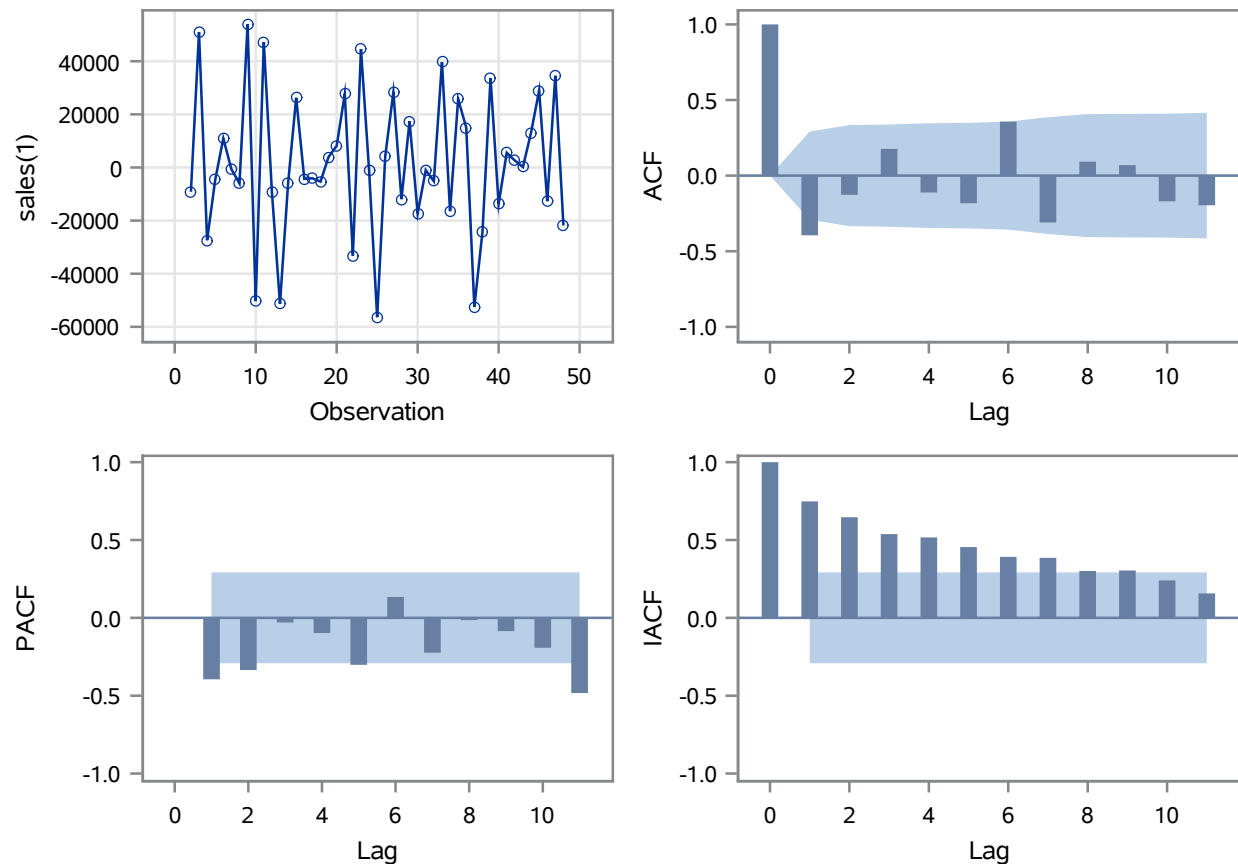


| Name of Variable = sales | |
|---|----------|
| Period(s) of Differencing | 1 |
| Mean of Working Series | 1628.263 |
| Standard Deviation | 26754.34 |
| Number of Observations | 47 |
| Observation(s) eliminated by differencing | 1 |

| Autocorrelation Check for White Noise | | | | | | | | | |
|---------------------------------------|------------|----|------------|------------------|--------|-------|--------|--------|-------|
| To Lag | Chi-Square | DF | Pr > ChiSq | Autocorrelations | | | | | |
| 6 | 19.93 | 6 | 0.0029 | -0.395 | -0.127 | 0.177 | -0.112 | -0.183 | 0.357 |

Trend and Correlation Analysis for sales(1)



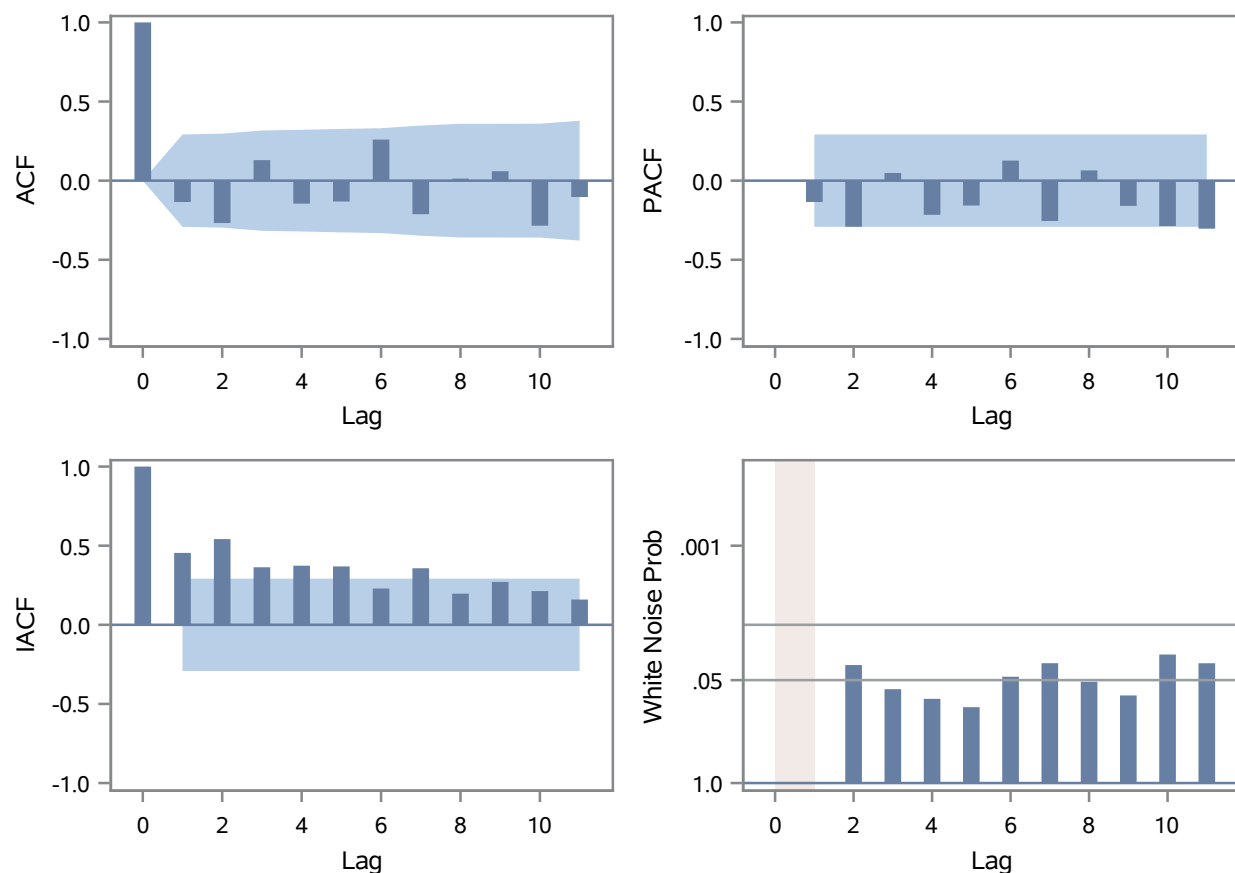
| Maximum Likelihood Estimation | | | | | |
|-------------------------------|----------|----------------|---------|----------------|-----|
| Parameter | Estimate | Standard Error | t Value | Approx Pr > t | Lag |
| MU | 1836.9 | 2634.4 | 0.70 | 0.4856 | 0 |
| AR1,1 | -0.39456 | 0.13758 | -2.87 | 0.0041 | 1 |

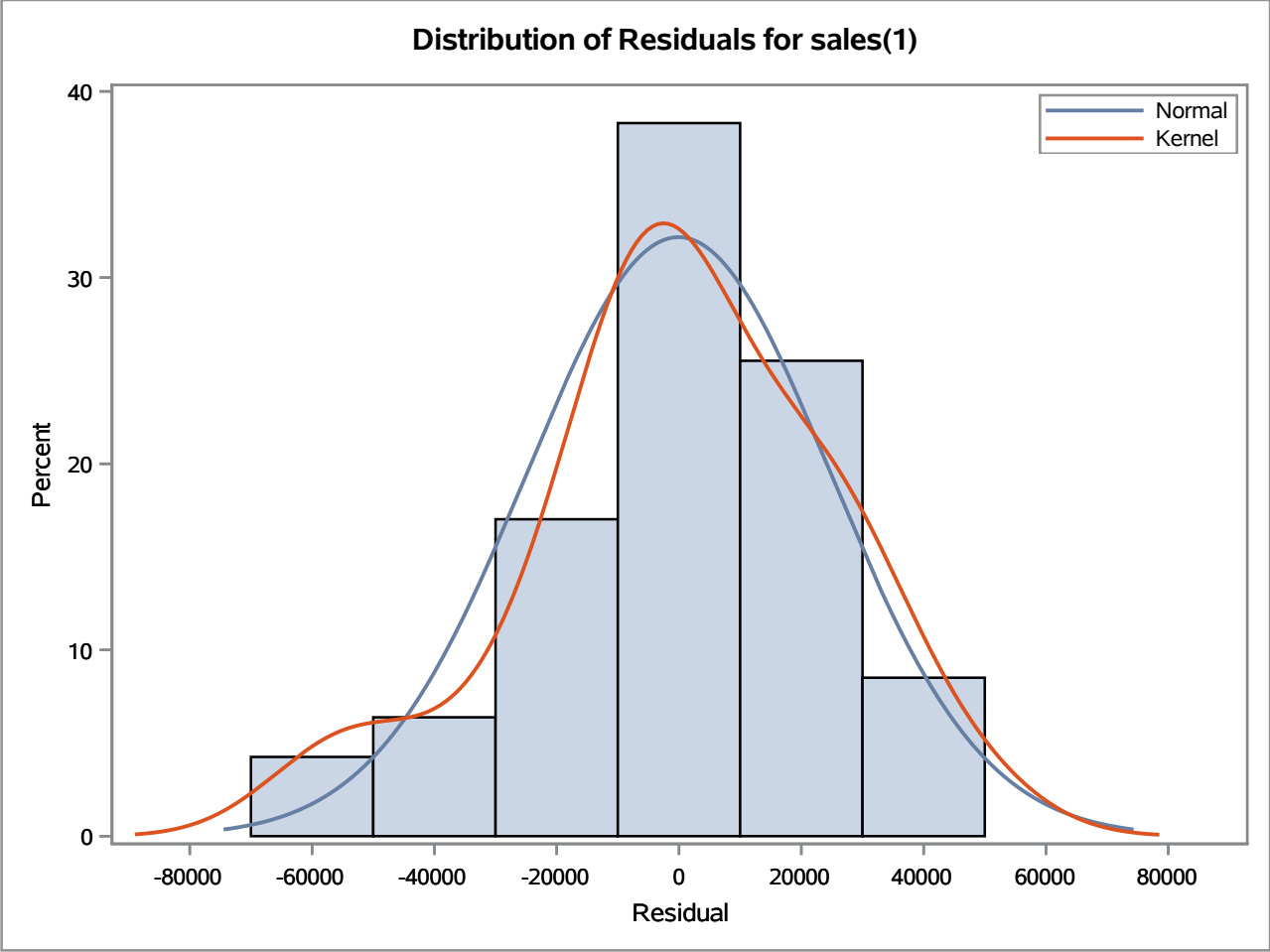
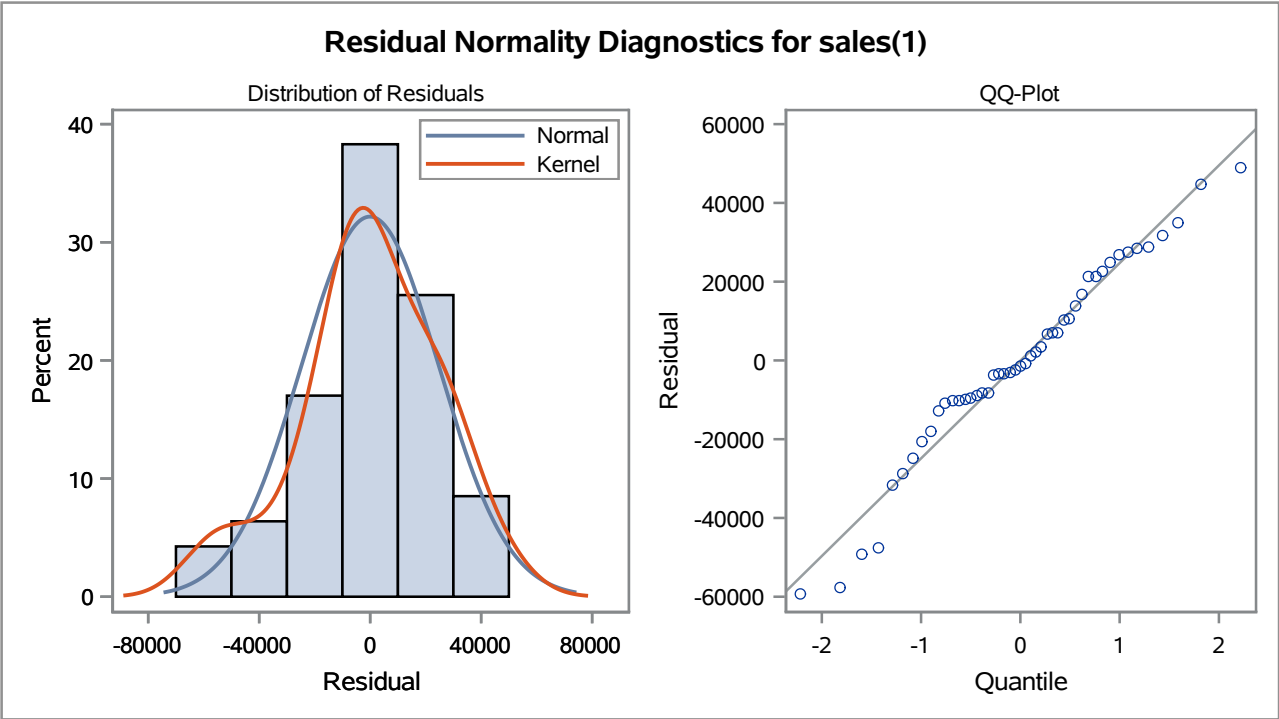
| | |
|---------------------|----------|
| Constant Estimate | 2561.655 |
| Variance Estimate | 6.287E8 |
| Std Error Estimate | 25073.82 |
| AIC | 1087.686 |
| SBC | 1091.386 |
| Number of Residuals | 47 |

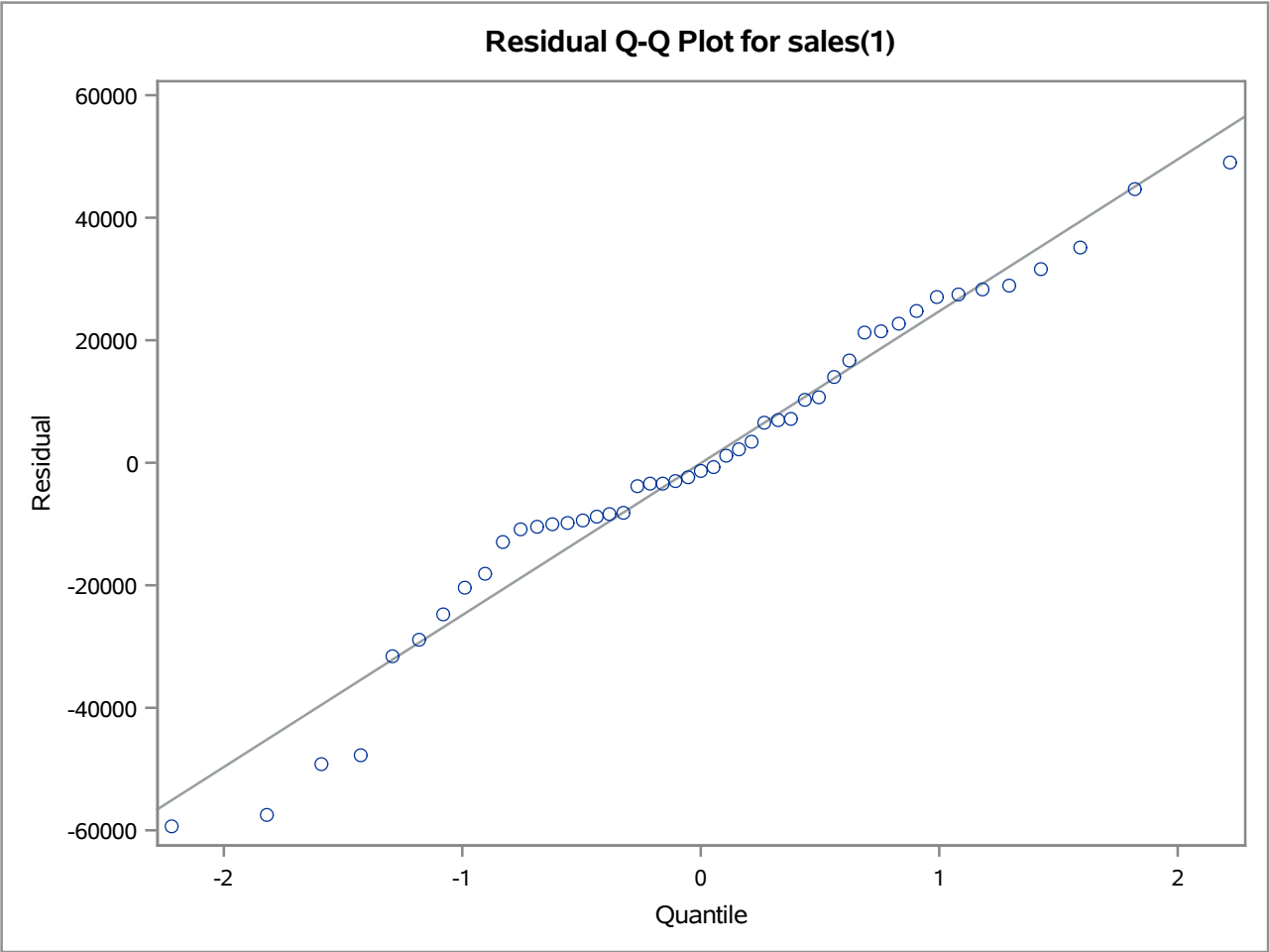
| Correlations of Parameter Estimates | | |
|-------------------------------------|--------|--------|
| Parameter | MU | AR1,1 |
| MU | 1.000 | -0.014 |
| AR1,1 | -0.014 | 1.000 |

| Autocorrelation Check of Residuals | | | | | | | | | |
|------------------------------------|------------|----|------------|------------------|--------|-------|--------|--------|-------|
| To Lag | Chi-Square | DF | Pr > ChiSq | Autocorrelations | | | | | |
| 6 | 11.32 | 5 | 0.0453 | -0.135 | -0.268 | 0.130 | -0.145 | -0.132 | 0.260 |
| 12 | 41.82 | 11 | <.0001 | -0.212 | 0.013 | 0.060 | -0.284 | -0.103 | 0.578 |
| 18 | 47.98 | 17 | <.0001 | -0.014 | -0.168 | 0.048 | -0.084 | -0.084 | 0.192 |
| 24 | 68.58 | 23 | <.0001 | -0.181 | 0.046 | 0.054 | -0.218 | -0.079 | 0.353 |

Residual Correlation Diagnostics for sales(1)







| Model for variable sales | |
|---------------------------|----------|
| Estimated Mean | 1836.893 |
| Period(s) of Differencing | 1 |

| Autoregressive Factors | |
|------------------------|--------------------|
| Factor 1: | 1 + 0.39456 B**(1) |

Warning: The ID value for observation 3 is the same as the ID value for the last observation according to ID variable ORDER_DATE.

Warning: There are gaps in the interval for observation 5 according to ID variable ORDER_DATE.

Warning: The ID value for observation 6 is the same as the ID value for the last observation according to ID variable ORDER_DATE.

Warning: There are gaps in the interval for observation 8 according to ID variable ORDER_DATE.

Warning: The ID value for observation 9 is the same as the ID value for the last observation according to ID variable ORDER_DATE.

Warning: There are gaps in the interval for observation 10 according to ID variable ORDER_DATE.

Warning: The ID value for observation 12 is the same as the ID value for the last observation according to ID variable ORDER_DATE.

Warning: There are gaps in the interval for observation 13 according to ID variable ORDER_DATE.

Warning: The ID value for observation 15 is the same as the ID value for the last observation according to ID variable ORDER_DATE.

Warning: There are gaps in the interval for observation 16 according to ID variable ORDER_DATE.

Warning: The ID value for observation 18 is the same as the ID value for the last observation according to ID variable ORDER_DATE.

Warning: There are gaps in the interval for observation 19 according to ID variable ORDER_DATE.

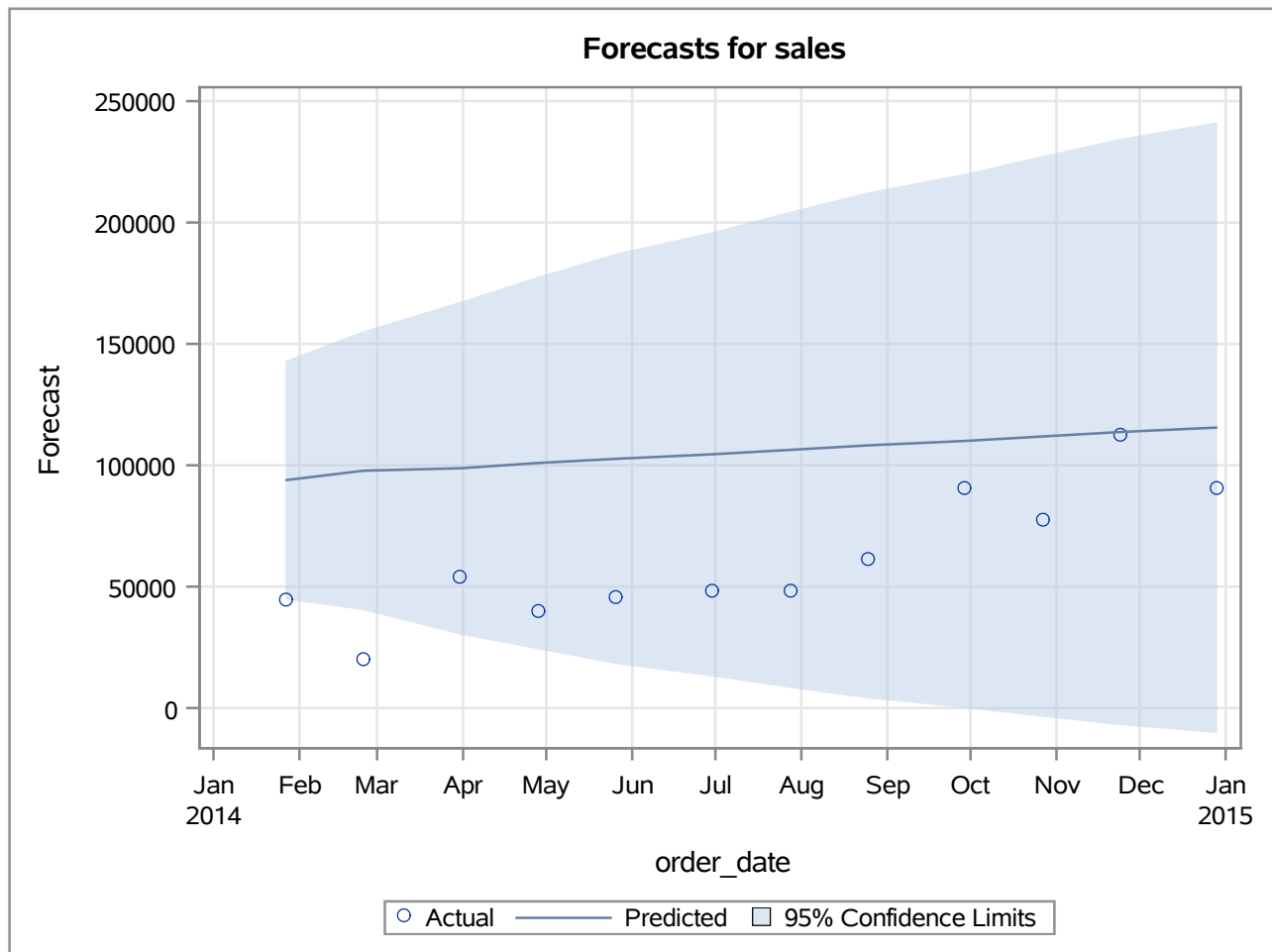
Note: Further warnings will not be printed.

Warning: The ID value for observation 21 is the same as the ID value for the last observation according to ID variable ORDER_DATE.

Warning: The ID value for observation 27 is the same as the ID value for the last observation according to ID variable ORDER_DATE.

Warning: The ID value for observation 30 is the same as the ID value for the last observation according to ID variable ORDER_DATE.

| Forecasts for variable sales | | | | | | |
|------------------------------|-------------|-----------|-----------------------|-------------|-------------|-------------|
| Obs | Forecast | Std Error | 95% Confidence Limits | | Actual | Residual |
| 37 | 93862.8954 | 25073.815 | 44719.1206 | 143006.6702 | 44703.1420 | -49159.7534 |
| 38 | 97755.9980 | 29311.267 | 40306.9701 | 155205.0259 | 20283.5134 | -77472.4846 |
| 39 | 98781.5944 | 34976.482 | 30228.9492 | 167334.2397 | 53908.9620 | -44872.6324 |
| 40 | 100938.5911 | 39129.865 | 24245.4657 | 177631.7165 | 40112.4209 | -60826.1702 |
| 41 | 102649.1837 | 43135.015 | 18106.1079 | 187192.2594 | 45651.2362 | -56997.9475 |
| 42 | 104535.9090 | 46706.167 | 12993.5035 | 196078.3145 | 48259.7487 | -56276.1603 |
| 43 | 106353.1396 | 50056.972 | 8243.2766 | 204463.0025 | 48428.3650 | -57924.7746 |
| 44 | 108197.7899 | 53184.510 | 3958.0658 | 212437.5139 | 61516.0860 | -46681.7039 |
| 45 | 110031.6215 | 56142.793 | -6.2307 | 220069.4737 | 90488.7220 | -19542.8995 |
| 46 | 111869.7218 | 58951.042 | -3672.1973 | 227411.6408 | 77793.7552 | -34075.9666 |
| 47 | 113706.1378 | 61632.134 | -7090.6249 | 234502.9004 | 112326.4710 | -1379.6668 |
| 48 | 115543.2183 | 64201.106 | -10288.6367 | 241375.0733 | 90474.6008 | -25068.6175 |



| Outlier Detection Summary | |
|---------------------------|------|
| Maximum number searched | 1 |
| Number found | 1 |
| Significance used | 0.05 |

| Outlier Details | | | | |
|-----------------|-------|----------|------------|----------------------|
| Obs | Type | Estimate | Chi-Square | Approx Prob>ChiSq |
| 13 | Shift | -59599.7 | 11.04 | 0.0009 |

| Obs | rmse | mae | mape |
|-----|----------|----------|---------|
| 1 | 32428.03 | 25648.48 | 74.2618 |