COPY FROM SHEET1

**Regression Analysis: ΔL versus T13-T15, (T0-T15)^2, (T13-T15)^2**

**Regression Equation**

|  |  |  |
| --- | --- | --- |
| ΔL | = | -21.79 + 3.759 (T13-T15) + 0.04689 (T0-T15)^2 - 0.1411 (T13-T15)^2 |

**Coefficients**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Term** | **Coef** | **SE Coef** | **T-Value** | **P-Value** | **VIF** |
| Constant | -21.79 | 3.31 | -6.58 | 0.000 |  |
| T13-T15 | 3.759 | 0.823 | 4.57 | 0.000 | 200.72 |
| (T0-T15)^2 | 0.04689 | 0.00567 | 8.27 | 0.000 | 4.38 |
| (T13-T15)^2 | -0.1411 | 0.0417 | -3.38 | 0.001 | 178.06 |

**Model Summary**

|  |  |  |  |
| --- | --- | --- | --- |
| **S** | **R-sq** | **R-sq(adj)** | **R-sq(pred)** |
| 0.784493 | 94.66% | 94.44% | 93.93% |

**Analysis of Variance**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Source** | **DF** | **Adj SS** | **Adj MS** | **F-Value** | **P-Value** |
| Regression | 3 | 807.109 | 269.036 | 437.15 | 0.000 |
| T13-T15 | 1 | 12.826 | 12.826 | 20.84 | 0.000 |
| (T0-T15)^2 | 1 | 42.133 | 42.133 | 68.46 | 0.000 |
| (T13-T15)^2 | 1 | 7.033 | 7.033 | 11.43 | 0.001 |
| Error | 74 | 45.542 | 0.615 |  |  |
| Total | 77 | 852.651 |  |  |  |

**Fits and Diagnostics for Unusual Observations**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Obs** | **ΔL** | **Fit** | **Resid** | **Std Resid** |  |  |
| 1 | 0.932 | -0.149 | 1.081 | 1.75 |  | X |
| 2 | 2.682 | 2.036 | 0.646 | 0.95 |  | X |
| 3 | 3.931 | 3.635 | 0.296 | 0.43 |  | X |
| 5 | 6.720 | 8.362 | -1.643 | -2.21 | R |  |
| 22 | 16.598 | 14.934 | 1.664 | 2.15 | R |  |
| 27 | 17.117 | 15.293 | 1.824 | 2.35 | R |  |
| 30 | 17.117 | 15.270 | 1.846 | 2.37 | R |  |

*R  Large residual  
X  Unusual X*

