Table: Correlation matrix

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Depth | Arsenic | Iron | Manganese |
| Depth | 1.000 | -0.034 | -0.123 | 0.028 |
| Arsenic | -0.034 | 1.000 | 0.126 | 0.009 |
| Iron | -0.123 | 0.126 | 1.000 | **0.260\*** |
| Manganese | 0.028 | 0.009 | **0.260\*** | 1.000 |

\*Statistically Significant

Table: P-value

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Depth | Arsenic | Iron | Manganese |
| Depth |  | 0.790 | 0.338 | 0.828 |
| Arsenic | 0.790 |  | 0.323 | 0.942 |
| Iron | 0.338 | 0.323 |  | **0.040** |
| Manganese | 0.828 | 0.942 | **0.040** | 1.000 |

E:\ResearchProject\Jakariya\Rplot01.tiff

E:\ResearchProject\Jakariya\Rplot02.tiff

|  |  |
| --- | --- |
| E:\ResearchProject\Jakariya\Rplot03.tiff | E:\ResearchProject\Jakariya\Rplot04.tiff |
| E:\ResearchProject\Jakariya\Rplot05.tiff | E:\ResearchProject\Jakariya\Rplot06.tiff |

E:\ResearchProject\Jakariya\Rplot07.tiff

**Regression Model**

**Dependent: Arsenic**

Coefficients:

Estimate Std. Error t value Pr(>|t|)

(Intercept) 3.519e-02 2.682e-02 1.312 0.195

Depth -1.223e-05 9.078e-05 -0.135 0.893

Iron 4.509e-03 4.659e-03 0.968 0.337

Manganese -2.045e-03 1.138e-02 -0.180 0.858

Residual standard error: 0.1056 on 59 degrees of freedom

Multiple R-squared: 0.01689, Adjusted R-squared: -0.0331

F-statistic: 0.3378 on 3 and 59 DF, p-value: 0.7981

**Dependent: Iron**

Coefficients:

Estimate Std. Error t value Pr(>|t|)

(Intercept) 1.961311 0.709637 2.764 0.00761 \*\*

Depth -0.002542 0.002495 -1.019 0.31255

Arsenic 3.465236 3.580713 0.968 0.33712

Manganese 0.644755 0.304242 2.119 0.03829 \*

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Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 2.926 on 59 degrees of freedom

Multiple R-squared: 0.09865, Adjusted R-squared: 0.05282

F-statistic: 2.153 on 3 and 59 DF, p-value: 0.1032

**Dependent: Manganese**

Coefficients:

Estimate Std. Error t value Pr(>|t|)

(Intercept) 0.6846242 0.2980572 2.297 0.0252 \*

Depth 0.0004944 0.0010362 0.477 0.6351

Arsenic -0.2674004 1.4883158 -0.180 0.8580

Iron 0.1097093 0.0517688 2.119 0.0383 \*

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Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 1.207 on 59 degrees of freedom

Multiple R-squared: 0.07156, Adjusted R-squared: 0.02435

F-statistic: 1.516 on 3 and 59 DF, p-value: 0.2198