**Appendix-A**

**Adani Carmicahel Coal Mine**

Water quality data

| Matrix: | Sample Type: | REG | REG | REG | REG | REG | REG | REG | REG |
|---|---|---|---|---|---|---|---|---|---|
| Project name/number: | Sample Date: | 01/05/2020 | 25/04/2020 | 25/04/2020 | 30/04/2020 | 23/04/2020 | 24/04/2020 | 24/04/2020 | 23/04/2020 |
| | Client sample ID (1st): | C006P3R | C007P2 | C008P1 | C008P2 | C011P3 | C012P1 | C012P2 | C014P2 |
| | Hydro-Stratigraphic unit | Colinlea SSt | Bandanna | Rewan | Bandanna | Colinlea SSt | Joe-Joe | Joe-Joe | Bandanna |
| **Analyte grouping/Analyte** | **Unit** | | | | | | | | |
| pH Value | pH Unit | **8.2** | **7.5** | **7.2** | **8.1** | **8.1** | **6.8** | **7.8** | **8.2** |
| Electrical Conductivity @ 25°C | µS/cm | **1010** | **14000** | **22700** | **2750** | **907** | **1980** | **2560** | **1920** |
| Total Dissolved Solids @180°C | mg/L | **582** | **9370** | **15700** | **1540** | **556** | **1090** | **1330** | **1060** |
| Total Alkalinity as CaCO3 | mg/L | **430** | **265** | **298** | **419** | **215** | **78** | **269** | **327** |
| Sulfate as SO4 - Turbidimetric | mg/L | **2** | **330** | **215** | **82** | <1 | **56** | **49** | <1 |
| Chloride | mg/L | **78** | **4540** | **8000** | **632** | **176** | **597** | **703** | **463** |
| Calcium | mg/L | **13** | **277** | **433** | **29** | **21** | **26** | **76** | **15** |
| Magnesium | mg/L | **3** | **236** | **349** | **16** | **5** | **30** | **27** | **3** |
| Sodium | mg/L | **250** | **2220** | **3570** | **564** | **161** | **307** | **398** | **363** |
| Potassium | mg/L | **5** | **37** | **82** | **9** | **8** | **11** | **14** | **7** |
| Aluminium | mg/L | **0.01** | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | **0.01** |
| Arsenic | mg/L | <0.001 | <0.001 | **0.004** | <0.001 | <0.001 | <0.001 | **0.002** | <0.001 |
| Cadmium | mg/L | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 |
| Chromium | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Cobalt | mg/L | <0.001 | <0.001 | **0.005** | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Copper | mg/L | **0.009** | <0.001 | **0.002** | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Lead | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Manganese | mg/L | **0.025** | **0.207** | **2.12** | **0.052** | **0.03** | **0.007** | **0.17** | **0.008** |
| Molybdenum | mg/L | **0.001** | <0.001 | <0.001 | **0.001** | <0.001 | <0.001 | <0.001 | **0.002** |
| Nickel | mg/L | <0.001 | <0.001 | **0.013** | <0.001 | <0.001 | **0.002** | **0.002** | <0.001 |
| Selenium | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Silver | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Uranium | mg/L | <0.001 | <0.001 | **0.011** | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Vanadium | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Zinc | mg/L | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| Boron | mg/L | **0.10** | **0.60** | **1.24** | **0.16** | **0.41** | **0.32** | **0.36** | **0.24** |
| Iron | mg/L | **0.16** | **0.86** | **1.00** | <0.05 | **0.41** | <0.05 | **0.36** | <0.05 |
| Mercury | mg/L | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 |
| Fluoride | mg/L | **2.2** | **0.6** | **0.4** | **0.8** | **1.2** | **0.2** | **0.3** | **1** |
| Ammonia as N | mg/L | **0.29** | **0.58** | **0.95** | **1.04** | **0.17** | <0.01 | <0.01 | **0.96** |
| Nitrite as N | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Nitrate as N | mg/L | <0.01 | <0.01 | **0.01** | <0.01 | <0.01 | **0.05** | <0.01 | <0.01 |
| Total Phosphorus as P | mg/L | **0.02** | <0.05 | **0.18** | **0.02** | **0.02** | **0.01** | <0.01 | **0.03** |
| C6 - C9 Fraction | µg/L | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 |
| C6 - C10 Fraction | µg/L | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 |
| >C10 - C40 Fraction (sum) | µg/L | <100 | <100 | **210** | <100 | <100 | <100 | <100 | <100 |
| Sum of BTEX | µg/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Matrix:** | **Sample Type:** | **REG** | **REG** | **REG** | **REG** | **REG** | **REG** | **REG** | **REG** |
| **Project name/number:** | **Sample Date:** | 24/04/2020 | 24/04/2020 | 24/04/2020 | 24/04/2020 | 24/04/2020 | 26/04/2020 | 30/04/2020 | 30/04/2020 |
| | **Client sample ID (1st):** | C016P2 | C018P2 | C018P3 | C022P1 | C024P3 | C025P2 | C027P1 | C027P2 |
| | **Hydro-Stratigraphic unit** | Bandanna | Bandanna | Colinlea SSt | Dunda Beds | Colinlea SSt | Tertiary | Alluvium | Dunda Beds |
| **Analyte grouping/Analyte** | **Unit** | | | | | | | | |
| pH Value | pH Unit | **7.9** | **7.8** | **7.5** | **6.1** | **6.6** | **7.2** | **6.6** | **6.6** |
| Electrical Conductivity @ 25°C | µS/cm | **2860** | **1740** | **771** | **274** | **1360** | **14000** | **6810** | **683** |
| Total Dissolved Solids @180°C | mg/L | **1650** | **960** | **426** | **166** | **834** | **8230** | **3970** | **460** |
| Total Alkalinity as CaCO3 | mg/L | **196** | **265** | **142** | **18** | **106** | **369** | **172** | **44** |
| Sulfate as SO4 - Turbidimetric | mg/L | **38** | **8** | **13** | **8** | **21** | **414** | **519** | **14** |
| Chloride | mg/L | **840** | **441** | **160** | **65** | **402** | **4340** | **1760** | **181** |
| Calcium | mg/L | **84** | **43** | **18** | **1** | **12** | **99** | **29** | **2** |
| Magnesium | mg/L | **17** | **23** | **5** | **3** | **24** | **104** | **130** | **3** |
| Sodium | mg/L | **433** | **249** | **132** | **43** | **216** | **2620** | **1270** | **137** |
| Potassium | mg/L | **9** | **16** | **8** | **2** | **10** | **54** | **68** | **8** |
| Aluminium | mg/L | <0.01 | <0.01 | <0.01 | **0.02** | <0.01 | <0.01 | <0.01 | **0.01** |
| Arsenic | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | **0.014** | <0.001 | **0.009** | **0.002** |
| Cadmium | mg/L | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 |
| Chromium | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Cobalt | mg/L | <0.001 | <0.001 | <0.001 | **0.019** | <0.001 | <0.001 | **0.002** | <0.001 |
| Copper | mg/L | <0.001 | <0.001 | <0.001 | **0.004** | <0.001 | <0.001 | <0.001 | <0.001 |
| Lead | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Manganese | mg/L | **0.055** | **0.069** | **0.05** | **0.008** | **0.14** | **1.71** | **3.02** | **0.132** |
| Molybdenum | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Nickel | mg/L | <0.001 | <0.001 | <0.001 | **0.002** | **0.008** | **0.001** | <0.001 | **0.001** |
| Selenium | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Silver | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Uranium | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Vanadium | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Zinc | mg/L | <0.005 | <0.005 | <0.005 | **0.01** | <0.005 | <0.005 | **0.008** | <0.005 |
| Boron | mg/L | **0.33** | **0.46** | **0.25** | **0.07** | **0.24** | **1.27** | **0.71** | **0.13** |
| Iron | mg/L | **0.07** | **0.5** | **0.8** | <0.05 | **14.9** | **7.6** | **10.6** | **3.24** |
| Mercury | mg/L | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 |
| Fluoride | mg/L | <100 | **0.4** | **1.0** | **0.1** | **0.3** | **0.3** | **0.3** | **0.1** |
| Ammonia as N | mg/L | **0.23** | **0.02** | **0.08** | <0.01 | **0.18** | **0.46** | **0.31** | **0.06** |
| Nitrite as N | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Nitrate as N | mg/L | **0.04** | **0.01** | **0.02** | **0.21** | <0.01 | <0.01 | <0.01 | **0.02** |
| Total Phosphorus as P | mg/L | **0.64** | **0.06** | **0.03** | <0.01 | **0.21** | **0.13** | **0.03** | **0.10** |
| C6 - C9 Fraction | µg/L | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 |
| C6 - C10 Fraction | µg/L | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 |
| >C10 - C40 Fraction (sum) | µg/L | <100 | <100 | <100 | <100 | <100 | <100 | **120** | <100 |
| Sum of BTEX | µg/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |

| | | | | | | | | | Page 3 |
|---|---|---|---|---|---|---|---|---|---|
| **Matrix:** | **Sample Type:** | **REG** | **REG** | **REG** | **REG** | **REG** | **REG** | **REG** | **REG** |
| **Project name/number:** | **Sample Date:** | 26/04/2020 | 26/04/2020 | 29/04/2020 | 28/04/2020 | 28/04/2020 | 29/04/2020 | 29/04/2020 | 26/04/2020 |
| | **Client sample ID (1st):** | C029P1 | C029P2 | C032P2 | C034P1 | C034P3 | C035P1 | C035P2 | C14002SP |
| | **Hydro-Stratigraphic unit** | Alluvium | Tertiary | Bandanna | Bandanna | Colinlea SSt | Rewan | Bandanna | Joe-Joe |
| **Analyte grouping/Analyte** | **Unit** | | | | | | | | |
| pH Value | pH Unit | **7.5** | **7.0** | **8.3** | **7.6** | **6.9** | **7.5** | **7.5** | **7.2** |
| Electrical Conductivity @ 25°C | µS/cm | **31500** | **12000** | **1220** | **4140** | **1510** | **3400** | **1430** | **11400** |
| Total Dissolved Solids @180°C | mg/L | **19700** | **6980** | **814** | **2600** | **910** | **2220** | **882** | **7320** |
| Total Alkalinity as CaCO3 | mg/L | **2120** | **248** | **359** | **153** | **97** | **152** | **109** | **135** |
| Sulfate as SO4 - Turbidimetric | mg/L | **949** | **267** | <1 | **100** | **18** | **51** | **15** | **371** |
| Chloride | mg/L | **9970** | **3860** | **227** | **1270** | **486** | **1110** | **434** | **3600** |
| Calcium | mg/L | **55** | **79** | **13** | **58** | **23** | **17** | **13** | **267** |
| Magnesium | mg/L | **354** | **112** | **4** | **39** | **11** | **18** | **9** | **100** |
| Sodium | mg/L | **7280** | **2260** | **328** | **922** | **327** | **852** | **337** | **1890** |
| Potassium | mg/L | **225** | **59** | **5** | **11** | **13** | **5** | **6** | **28** |
| Aluminium | mg/L | <0.05 | <0.01 | **0.02** | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Arsenic | mg/L | **0.014** | **0.005** | **0.008** | **0.002** | <0.001 | **0.003** | <0.001 | **0.002** |
| Cadmium | mg/L | <0.0005 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 |
| Chromium | mg/L | <0.005 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Cobalt | mg/L | <0.005 | <0.001 | <0.001 | <0.001 | <0.001 | **0.001** | <0.001 | <0.001 |
| Copper | mg/L | <0.005 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Lead | mg/L | <0.005 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Manganese | mg/L | **0.124** | **0.186** | **0.07** | **0.138** | **0.27** | **0.131** | **0.12** | **1.00** |
| Molybdenum | mg/L | <0.005 | <0.001 | **0.008** | <0.001 | <0.001 | <0.001 | <0.001 | **0.001** |
| Nickel | mg/L | <0.005 | **0.003** | <0.001 | **0.001** | <0.001 | **0.002** | <0.001 | **0.003** |
| Selenium | mg/L | <0.05 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Silver | mg/L | <0.005 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Uranium | mg/L | **0.12** | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Vanadium | mg/L | <0.05 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Zinc | mg/L | <0.025 | **0.012** | <0.005 | **0.342** | **0.128** | <0.005 | <0.005 | <0.005 |
| Boron | mg/L | **4.33** | **1.02** | **0.35** | **0.76** | **0.16** | **0.78** | **0.24** | **0.73** |
| Iron | mg/L | **0.99** | **1.14** | **0.26** | **0.78** | **3.41** | **0.30** | **0.46** | **2.71** |
| Mercury | mg/L | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 |
| Fluoride | mg/L | **1.1** | **0.3** | **0.1** | **0.6** | **0.2** | **0.6** | **0.2** | **0.2** |
| Ammonia as N | mg/L | <0.01 | <0.01 | **0.33** | **0.06** | **0.11** | **0.03** | **0.04** | **0.23** |
| Nitrite as N | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Nitrate as N | mg/L | **0.01** | <0.01 | <0.01 | **0.06** | <0.01 | <0.01 | <0.01 | <0.01 |
| Total Phosphorus as P | mg/L | **0.29** | **0.08** | **0.05** | <0.01 | **0.01** | **0.10** | **0.02** | **0.06** |
| C6 - C9 Fraction | µg/L | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 |
| C6 - C10 Fraction | µg/L | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 |
| >C10 - C40 Fraction (sum) | µg/L | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 |
| Sum of BTEX | µg/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Matrix:** | **Sample Type:** | **REG** | **REG** | **REG** | **REG** | **REG** | **REG** | **REG** | **REG** |
| **Project name/number:** | **Sample Date:** | 30/04/2020 | 29/04/2020 | 23/04/2020 | 24/04/2020 | 24/04/2020 | 29/04/2020 | 30/04/2020 | 29/04/2020 |
| | **Client sample ID (1st):** | C14006SP | C14008SP | C14011SP | C14012SP | C14013SP | C14015SP | C14016SP | C14017SP |
| | **Hydro-Stratigraphic unit** | Joe-Joe | Joe-Joe | Clematis Sst | Clematis Sst | Clematis Sst | Joe-Joe | Joe-Joe | Joe-Joe |
| **Analyte grouping/Analyte** | **Unit** | | | | | | | | |
| pH Value | pH Unit | **7.2** | **6.9** | **6.0** | **7.5** | **5.9** | **7.3** | **9.2** | **7.7** |
| Electrical Conductivity @ 25°C | µS/cm | **8290** | **657** | **252** | **486** | **407** | **2330** | **2390** | **5230** |
| Total Dissolved Solids @180°C | mg/L | **5210** | **413** | **147** | **278** | **224** | **1210** | **1320** | **3060** |
| Total Alkalinity as CaCO3 | mg/L | **117** | **47** | **14** | **130** | **11** | **121** | **87** | **250** |
| Sulfate as SO4 - Turbidimetric | mg/L | **192** | **11** | **7** | **7** | **12** | **60** | **65** | **41** |
| Chloride | mg/L | **2660** | **193** | **63** | **70** | **113** | **647** | **686** | **1500** |
| Calcium | mg/L | **194** | **11** | **1** | **2** | **1** | **16** | **22** | **112** |
| Magnesium | mg/L | **87** | **7** | **5** | **2** | **8** | **14** | **2** | **56** |
| Sodium | mg/L | **1520** | **136** | **34** | **92** | **52** | **464** | **490** | **959** |
| Potassium | mg/L | **22** | **6** | **2** | **7** | **6** | **9** | **8** | **16** |
| Aluminium | mg/L | <0.01 | **0.02** | <0.01 | <0.01 | **0.01** | <0.01 | **0.03** | <0.01 |
| Arsenic | mg/L | **0.001** | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | **0.007** | **0.002** |
| Cadmium | mg/L | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 |
| Chromium | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Cobalt | mg/L | <0.001 | **0.005** | **0.002** | <0.001 | **0.004** | <0.001 | <0.001 | **0.001** |
| Copper | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | **0.002** | <0.001 | <0.001 | <0.001 |
| Lead | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Manganese | mg/L | **0.416** | **0.08** | **0.011** | **0.001** | **0.017** | **0.216** | **0.015** | **0.672** |
| Molybdenum | mg/L | <0.001 | **0.001** | <0.001 | <0.001 | <0.001 | <0.001 | **0.008** | **0.004** |
| Nickel | mg/L | <0.001 | **0.005** | **0.003** | <0.001 | **0.008** | <0.001 | <0.001 | <0.001 |
| Selenium | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Silver | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Uranium | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Vanadium | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Zinc | mg/L | **0.22** | **0.136** | <0.005 | <0.005 | **0.02** | **0.062** | <0.005 | **0.061** |
| Boron | mg/L | **0.44** | **0.06** | <0.05 | <0.05 | <0.05 | **0.39** | **0.30** | **0.72** |
| Iron | mg/L | **8.20** | **4.87** | <0.05 | <0.05 | <0.05 | **0.47** | <0.05 | **0.37** |
| Mercury | mg/L | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 |
| Fluoride | mg/L | **0.7** | **0.2** | <0.1 | **0.4** | <0.1 | **0.4** | **1.0** | **1.0** |
| Ammonia as N | mg/L | **0.51** | **0.08** | <0.01 | <0.01 | <0.01 | **0.04** | **0.70** | **0.17** |
| Nitrite as N | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Nitrate as N | mg/L | <0.01 | <0.01 | **0.44** | **0.06** | **0.58** | **0.04** | **0.02** | <0.01 |
| Total Phosphorus as P | mg/L | **0.01** | **0.01** | <0.01 | **0.08** | <0.01 | **0.03** | **0.03** | <0.01 |
| C6 - C9 Fraction | µg/L | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 |
| C6 - C10 Fraction | µg/L | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 |
| >C10 - C40 Fraction (sum) | µg/L | <100 | <100 | <100 | <100 | **110** | <100 | <100 | <100 |
| Sum of BTEX | µg/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |

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|---|---|---|---|---|---|---|---|---|---|
| **Matrix:** | **Sample Type:** | **REG** | **REG** | **REG** | **REG** | **REG** | **REG** | **REG** | **REG** |
| **Project name/number:** | **Sample Date:** | 24/04/2020 | 26/04/2020 | 26/04/2020 | 24/04/2020 | 24/04/2020 | 29/04/2020 | 28/04/2020 | 28/04/2020 |
| | **Client sample ID (1st):** | C14020SP | C14021SP | C14023SP | C14024SP | C14028SP | C14029SP | C14031SP | C14032SP |
| | **Hydro-Stratigraphic unit** | Moolayember | Clematis SS | Dunda Beds | Composite bor | Alluvium | Composite bore | Composite b | Joe-Joe |
| **Analyte grouping/Analyte** | **Unit** | | | | | | | | |
| pH Value | pH Unit | **6.4** | **6.7** | **8.3** | **6.8** | **7.0** | **7.0** | **6.5** | **6.7** |
| Electrical Conductivity @ 25°C | µS/cm | **1520** | **603** | **728** | **482** | **45900** | **9570** | **5370** | **2020** |
| Total Dissolved Solids @180°C | mg/L | **840** | **360** | **445** | **272** | **32300** | **6290** | **3700** | **1230** |
| Total Alkalinity as CaCO3 | mg/L | **38** | **38** | **136** | **67** | **377** | **54** | **20** | **37** |
| Sulfate as SO4 - Turbidimetric | mg/L | **58** | **25** | **3** | **10** | **1840** | **441** | **112** | **28** |
| Chloride | mg/L | **475** | **159** | **173** | **100** | **16400** | **3210** | **1760** | **671** |
| Calcium | mg/L | **7** | **4** | **4** | **3** | **875** | **217** | **86** | **31** |
| Magnesium | mg/L | **44** | **11** | **1** | **6** | **1170** | **174** | **107** | **37** |
| Sodium | mg/L | **208** | **83** | **142** | **80** | **9400** | **1980** | **1070** | **402** |
| Potassium | mg/L | **24** | **16** | **8** | **8** | **140** | **12** | **15** | **14** |
| Aluminium | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.05 | <0.01 | <0.01 | <0.01 |
| Arsenic | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.005 | <0.001 | <0.001 | <0.001 |
| Cadmium | mg/L | **0.0001** | <0.0001 | <0.0001 | <0.0001 | <0.0005 | <0.0001 | <0.0001 | <0.0001 |
| Chromium | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.005 | <0.001 | <0.001 | <0.001 |
| Cobalt | mg/L | **0.001** | <0.001 | <0.001 | <0.001 | **0.012** | **0.004** | <0.001 | **0.003** |
| Copper | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.005 | <0.001 | <0.001 | <0.001 |
| Lead | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.005 | **0.001** | <0.001 | <0.001 |
| Manganese | mg/L | **0.001** | <0.001 | **0.052** | **0.018** | **2.43** | **0.07** | **0.04** | **0.201** |
| Molybdenum | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.005 | <0.001 | <0.001 | <0.001 |
| Nickel | mg/L | **0.006** | **0.001** | <0.001 | <0.001 | **0.008** | **0.009** | <0.001 | **0.002** |
| Selenium | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.05 | <0.01 | <0.01 | <0.01 |
| Silver | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.005 | <0.001 | <0.001 | <0.001 |
| Uranium | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | **0.06** | <0.001 | <0.001 | <0.001 |
| Vanadium | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.05 | <0.01 | <0.01 | <0.01 |
| Zinc | mg/L | **0.021** | **0.025** | <0.005 | <0.005 | <0.025 | **0.087** | **0.155** | **0.069** |
| Boron | mg/L | **0.19** | **0.07** | <0.05 | <0.05 | **3.16** | **1.79** | **0.41** | **0.13** |
| Iron | mg/L | <0.05 | <0.05 | <0.05 | <0.05 | **1.29** | **0.68** | **0.6** | **2.23** |
| Mercury | mg/L | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 |
| Fluoride | mg/L | **0.2** | <0.1 | **0.3** | **0.2** | **0.2** | <0.1 | **0.1** | **0.2** |
| Ammonia as N | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | **0.04** | **0.06** | **0.02** | **0.04** |
| Nitrite as N | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Nitrate as N | mg/L | **0.08** | **0.16** | <0.01 | <0.01 | <0.01 | <0.01 | **0.01** | <0.01 |
| Total Phosphorus as P | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.10 | **0.11** | <0.01 | **0.02** |
| C6 - C9 Fraction | µg/L | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 |
| C6 - C10 Fraction | µg/L | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 |
| >C10 - C40 Fraction (sum) | µg/L | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 |
| Sum of BTEX | µg/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Matrix:** | **Sample Type:** | **REG** | **REG** | **REG** | **REG** | **REG** | **REG** | **REG** | **REG** |
| **Project name/number:** | **Sample Date:** | 24/04/2020 | 25/04/2020 | 25/04/2020 | 25/04/2020 | 27/04/2020 | 14/05/2020 | 27/04/2020 | 22/04/2020 |
| | **Client sample ID (1st):** | C14033SP | C18001SP | C18002SP | C18003SP | C18004SP | C18005SP | C18006SP | C18009SP |
| | **Hydro-Stratigraphic unit** | Clematis Sst | Clematis SSt | Clematis SSt | Moolayember | Alluvium | Alluvium | Alluvium | Alluvium |
| **Analyte grouping/Analyte** | **Unit** | | | | | | | | |
| pH Value | pH Unit | **6.1** | **7.6** | **8.4** | **7.4** | **7.2** | **7.1** | **7.0** | **7.6** |
| Electrical Conductivity @ 25°C | µS/cm | **365** | **647** | **373** | **441** | **39500** | **51000** | **59600** | **23800** |
| Total Dissolved Solids @180°C | mg/L | **203** | **385** | **210** | **720** | **31900** | **44800** | **44800** | **20600** |
| Total Alkalinity as CaCO3 | mg/L | **13** | **101** | **140** | **159** | **218** | **190** | **233** | **49** |
| Sulfate as SO4 - Turbidimetric | mg/L | **5** | **11** | **1** | **12** | **737** | **2410** | **2940** | **858** |
| Chloride | mg/L | **99** | **145** | **32** | **39** | **14600** | **19600** | **22000** | **8960** |
| Calcium | mg/L | **2** | **3** | **1** | **4** | **3070** | **2430** | **2100** | **1890** |
| Magnesium | mg/L | **10** | **1** | <1 | **2** | **1270** | **1270** | **1480** | **337** |
| Sodium | mg/L | **46** | **118** | **75** | **84** | **4920** | **9560** | **11400** | **3420** |
| Potassium | mg/L | **10** | **16** | **12** | **15** | **20** | **17** | **29** | **26** |
| Aluminium | mg/L | <0.01 | <0.01 | <0.01 | **0.04** | <0.05 | <0.05 | <0.05 | <0.05 |
| Arsenic | mg/L | <0.001 | **0.002** | <0.001 | **0.002** | <0.005 | <0.005 | <0.005 | <0.005 |
| Cadmium | mg/L | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0005 | <0.0005 | <0.0005 | <0.0005 |
| Chromium | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.005 | <0.005 | <0.005 | **0.018** |
| Cobalt | mg/L | **0.002** | <0.001 | <0.001 | <0.001 | <0.005 | **0.017** | **0.012** | <0.005 |
| Copper | mg/L | **0.001** | <0.001 | <0.001 | <0.001 | <0.005 | **0.168** | <0.005 | **0.006** |
| Lead | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.005 | **0.012** | <0.005 | <0.005 |
| Manganese | mg/L | **0.004** | **0.016** | **0.12** | **0.088** | **0.11** | **1.72** | **1.02** | **0.04** |
| Molybdenum | mg/L | <0.001 | <0.001 | <0.001 | **0.001** | <0.005 | **0.007** | **0.011** | **0.02** |
| Nickel | mg/L | **0.002** | **0.004** | <0.001 | <0.001 | **0.014** | **0.028** | **0.02** | **0.008** |
| Selenium | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.05 | <0.05 | <0.05 | <0.05 |
| Silver | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.005 | <0.005 | <0.005 | <0.005 |
| Uranium | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | **0.038** | **0.088** | **0.068** | <0.005 |
| Vanadium | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.05 | <0.05 | <0.05 | <0.05 |
| Zinc | mg/L | **0.005** | **0.177** | <0.005 | <0.005 | <0.025 | **0.647** | <0.025 | **0.035** |
| Boron | mg/L | <0.05 | **0.07** | <0.05 | **0.06** | **1.14** | **4.39** | **5.66** | **1.34** |
| Iron | mg/L | <0.05 | **1.57** | <0.05 | <0.05 | **0.07** | <0.05 | **0.17** | <0.05 |
| Mercury | mg/L | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 |
| Fluoride | mg/L | <0.1 | **0.2** | **0.4** | **0.5** | **0.2** | <0.5 | **0.2** | **0.2** |
| Ammonia as N | mg/L | **0.01** | **0.16** | **0.08** | **0.02** | **0.23** | **0.30** | **0.21** | **0.1** |
| Nitrite as N | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Nitrate as N | mg/L | **0.62** | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | **0.12** |
| Total Phosphorus as P | mg/L | <0.01 | **0.02** | **0.18** | **1.35** | <0.05 | **0.20** | <0.10 | <0.05 |
| C6 - C9 Fraction | µg/L | <20 | <20 | <20 | <20 | <20 | <20 | **20** | <20 |
| C6 - C10 Fraction | µg/L | <20 | <20 | <20 | <20 | <20 | <20 | **20** | <20 |
| >C10 - C40 Fraction (sum) | µg/L | <100 | <100 | <100 | **140** | <100 | <100 | <100 | <100 |
| Sum of BTEX | µg/L | <1 | <1 | <1 | <1 | <1 | <1 | **5** | <1 |

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|---|---|---|---|---|---|---|---|---|---|
| **Matrix:** | **Sample Type:** | **REG** | **REG** | **REG** | **REG** | **REG** | **REG** | **REG** | **REG** |
| **Project name/number:** | **Sample Date:** | 25/04/2020 | 26/04/2020 | 29/04/2020 | 25/04/2020 | 29/04/2020 | 29/04/2020 | 29/04/2020 | 25/04/2020 |
| | **Client sample ID (1st):** | C18010SP | C180117SP | C180119SP | C18011SP | C180120SP | C180122SP | C180123SP | C18012SP |
| | **Hydro-Stratigraphic unit** | DSC Spearpoin | Dunda Beds | Joe-Joe | DSC Spearpoin | Composite Bor | Composite Bore | Joe-Joe | DSC Spearpoi |
| **Analyte grouping/Analyte** | **Unit** | | | | | | | | |
| pH Value | pH Unit | **8.3** | **6.7** | **6.8** | **7.2** | **6.0** | **6.1** | **8.3** | **7.5** |
| Electrical Conductivity @ 25°C | µS/cm | **624** | **240** | **758** | **724** | **8090** | **7260** | **796** | **481** |
| Total Dissolved Solids @180°C | mg/L | **448** | **142** | **440** | **367** | **5320** | **5030** | **486** | **268** |
| Total Alkalinity as CaCO3 | mg/L | **241** | **35** | **59** | **143** | **12** | **18** | **235** | **200** |
| Sulfate as SO4 - Turbidimetric | mg/L | **1** | **19** | **7** | **2** | **180** | **82** | **20** | **1** |
| Chloride | mg/L | **52** | **63** | **208** | **148** | **2620** | **2400** | **113** | **28** |
| Calcium | mg/L | **4** | **2** | **6** | **3** | **105** | **111** | **7** | **2** |
| Magnesium | mg/L | **1** | **2** | **4** | <1 | **151** | **125** | **3** | <1 |
| Sodium | mg/L | **125** | **42** | **146** | **140** | **1460** | **1290** | **178** | **96** |
| Potassium | mg/L | **13** | **2** | **4** | **14** | **31** | **20** | **3** | **18** |
| Aluminium | mg/L | **0.05** | **0.04** | <0.01 | **0.04** | **0.01** | <0.01 | <0.01 | **0.01** |
| Arsenic | mg/L | **0.001** | **0.001** | **0.001** | **0.003** | <0.001 | <0.001 | **0.004** | <0.001 |
| Cadmium | mg/L | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 |
| Chromium | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Cobalt | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | **0.002** | **0.003** | <0.001 | <0.001 |
| Copper | mg/L | **0.007** | **0.076** | **0.004** | <0.001 | **0.019** | <0.001 | <0.001 | <0.001 |
| Lead | mg/L | <0.001 | <0.001 | **0.001** | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Manganese | mg/L | **0.03** | **0.011** | **0.02** | **0.006** | **0.01** | **0.26** | **0.03** | **0.03** |
| Molybdenum | mg/L | **0.019** | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | **0.004** | <0.001 |
| Nickel | mg/L | **0.003** | **0.007** | **0.001** | <0.001 | **0.006** | **0.003** | <0.001 | <0.001 |
| Selenium | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Silver | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Uranium | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Vanadium | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Zinc | mg/L | <0.005 | **0.031** | **2.26** | <0.005 | **0.77** | **0.17** | <0.005 | <0.005 |
| Boron | mg/L | <0.05 | <0.05 | **0.08** | **0.07** | **0.45** | **0.46** | **0.34** | <0.05 |
| Iron | mg/L | **0.13** | **0.93** | **1.45** | **1.02** | **0.78** | **1.15** | <0.05 | **0.06** |
| Mercury | mg/L | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 |
| Fluoride | mg/L | **0.3** | **0.2** | **0.1** | **0.2** | <0.1 | <0.1 | **0.5** | **0.4** |
| Ammonia as N | mg/L | <0.01 | <0.01 | **0.09** | <0.01 | **0.04** | **0.07** | **0.08** | **0.10** |
| Nitrite as N | mg/L | **0.01** | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Nitrate as N | mg/L | **0.1** | **0.17** | <0.01 | **0.01** | **0.19** | <0.01 | **0.03** | <0.01 |
| Total Phosphorus as P | mg/L | **0.22** | <0.01 | <0.01 | **0.04** | <0.01 | **0.01** | **0.02** | **0.22** |
| C6 - C9 Fraction | µg/L | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 |
| C6 - C10 Fraction | µg/L | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 |
| >C10 - C40 Fraction (sum) | µg/L | <100 | **180** | <100 | <100 | <100 | <100 | <100 | <100 |
| Sum of BTEX | µg/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |

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|---|---|---|---|---|---|---|---|---|---|
| **Matrix:** | **Sample Type:** | **REG** | **REG** | **REG** | **REG** | **REG** | **REG** | **REG** | **REG** |
| **Project name/number:** | **Sample Date:** | 25/04/2020 | 14/05/2020 | 26/04/2020 | 27/04/2020 | 30/04/2020 | 25/04/2020 | 26/04/2020 | 23/04/2020 |
| | **Client sample ID (1st):** | C18013SP | C18014SP | C19001SP | C19022SP | C19026SP | C555P1 | C556P1 | C558P1 |
| | **Hydro-Stratigraphic unit** | DSC Spearpoin | DSC Spearp | Alluvium | Alluvium | | Rewan | Rewan | Tertiary |
| **Analyte grouping/Analyte** | **Unit** | | | | | | | | |
| pH Value | pH Unit | **7.5** | **9.2** | **7.5** | **7.5** | **8.2** | **7.6** | **6.8** | **7.0** |
| Electrical Conductivity @ 25°C | µS/cm | **755** | **677** | **22500** | **34400** | **1760** | **800** | **230** | **9710** |
| Total Dissolved Solids @180°C | mg/L | **430** | **420** | **14200** | **23300** | **992** | **450** | **169** | **5630** |
| Total Alkalinity as CaCO3 | mg/L | **262** | **237** | **623** | **219** | **373** | **133** | **25** | **235** |
| Sulfate as SO4 - Turbidimetric | mg/L | <1 | **3** | **744** | **1850** | **26** | <1 | **13** | **253** |
| Chloride | mg/L | **86** | **82** | **7740** | **12100** | **360** | **185** | **48** | **3050** |
| Calcium | mg/L | **2** | **7** | **192** | **1260** | **31** | **6** | <1 | **77** |
| Magnesium | mg/L | <1 | **28** | **231** | **755** | **7** | **6** | **1** | **216** |
| Sodium | mg/L | **146** | **98** | **4220** | **6310** | **390** | **135** | **43** | **1610** |
| Potassium | mg/L | **21** | **17** | **79** | **14** | **8** | **7** | **2** | **28** |
| Aluminium | mg/L | **0.01** | <0.01 | <0.01 | <0.05 | **0.05** | <0.01 | **0.04** | <0.01 |
| Arsenic | mg/L | **0.001** | **0.003** | **0.005** | **0.011** | **0.003** | **0.002** | <0.001 | <0.001 |
| Cadmium | mg/L | <0.0001 | <0.0001 | <0.0001 | <0.0005 | <0.0001 | <0.0001 | <0.0001 | <0.0001 |
| Chromium | mg/L | <0.001 | <0.001 | **0.001** | <0.005 | <0.001 | <0.001 | <0.001 | <0.001 |
| Cobalt | mg/L | **0.001** | <0.001 | <0.001 | <0.005 | <0.001 | <0.001 | **0.004** | **0.001** |
| Copper | mg/L | <0.001 | **0.001** | **0.002** | <0.005 | <0.001 | <0.001 | **0.006** | **0.042** |
| Lead | mg/L | <0.001 | <0.001 | <0.001 | <0.005 | <0.001 | <0.001 | <0.001 | <0.001 |
| Manganese | mg/L | **0.16** | **0.004** | **0.37** | **0.50** | **0.03** | **0.21** | **0.02** | **0.04** |
| Molybdenum | mg/L | <0.001 | **0.022** | **0.007** | **0.025** | **0.015** | <0.001 | <0.001 | **0.002** |
| Nickel | mg/L | **0.002** | **0.009** | **0.005** | <0.005 | <0.001 | <0.001 | **0.003** | **0.055** |
| Selenium | mg/L | <0.01 | <0.01 | <0.01 | <0.05 | <0.01 | <0.01 | <0.01 | <0.01 |
| Silver | mg/L | <0.001 | <0.001 | <0.001 | <0.005 | <0.001 | <0.001 | <0.001 | <0.001 |
| Uranium | mg/L | <0.001 | **0.002** | **0.045** | **0.052** | <0.001 | <0.001 | <0.001 | **0.003** |
| Vanadium | mg/L | <0.01 | <0.01 | **0.02** | <0.05 | <0.01 | <0.01 | <0.01 | <0.01 |
| Zinc | mg/L | <0.005 | <0.005 | <0.005 | <0.025 | <0.005 | <0.005 | <0.005 | **0.005** |
| Boron | mg/L | **0.06** | **0.06** | **1.42** | **3.60** | **0.09** | **0.16** | **0.06** | **0.75** |
| Iron | mg/L | **1.29** | <0.05 | <0.05 | **0.17** | **0.10** | **1.71** | <0.05 | <0.05 |
| Mercury | mg/L | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 |
| Fluoride | mg/L | **0.6** | **0.5** | **0.3** | **0.5** | **2.0** | **0.5** | **0.2** | **0.3** |
| Ammonia as N | mg/L | **0.36** | **0.15** | <0.01 | **0.13** | **0.32** | **0.03** | <0.01 | <0.01 |
| Nitrite as N | mg/L | **0.01** | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Nitrate as N | mg/L | **0.31** | **0.06** | **0.11** | <0.01 | <0.01 | <0.01 | **0.05** | <0.01 |
| Total Phosphorus as P | mg/L | **0.47** | **0.33** | **0.05** | <0.05 | **0.03** | **0.08** | **0.06** | <0.05 |
| C6 - C9 Fraction | µg/L | <20 | <20 | <20 | <100 | <20 | <20 | <20 | <20 |
| C6 - C10 Fraction | µg/L | <20 | <20 | <20 | <100 | <20 | <20 | <20 | <20 |
| >C10 - C40 Fraction (sum) | µg/L | <100 | **120** | <100 | <100 | <100 | <100 | <100 | <100 |
| Sum of BTEX | µg/L | <1 | <1 | <1 | **3** | <1 | <1 | <1 | <1 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Matrix:** | **Sample Type:** | **REG** | **REG** | **REG** | **REG** | **REG** | **REG** | **REG** | **REG** |
| **Project name/number:** | **Sample Date:** | 30/04/2020 | 29/04/2020 | 29/04/2020 | 24/04/2020 | 28/04/2020 | 29/04/2020 | 29/04/2020 | 28/04/2020 |
| | **Client sample ID (1st):** | C823SP | C847SP | C848SP | C914001SPR | C914108PTR | C9180121SPR | C9180124SPR | C9180125SPR |
| | **Hydro-Stratigraphic unit** | Bandanna | Bandanna | Colinlea SSt | Joe-Joe | Joe-Joe | Tertiary | Joe-Joe | Joe-Joe |
| **Analyte grouping/Analyte** | **Unit** | | | | | | | | |
| pH Value | pH Unit | **8.0** | **6.6** | **7.3** | **6.7** | **6.7** | **6.4** | **6.3** | **8.5** |
| Electrical Conductivity @ 25°C | µS/cm | **4380** | **324** | **2740** | **21300** | **495** | **3600** | **472** | **847** |
| Total Dissolved Solids @180°C | mg/L | **2540** | **242** | **1550** | **14900** | **313** | **2020** | **267** | **576** |
| Total Alkalinity as CaCO3 | mg/L | **467** | **23** | **206** | **191** | **29** | **29** | **20** | **282** |
| Sulfate as SO4 - Turbidimetric | mg/L | **1** | **7** | **18** | **1470** | **14** | **92** | **6** | <1 |
| Chloride | mg/L | **1160** | **91** | **848** | **7410** | **146** | **1090** | **128** | **134** |
| Calcium | mg/L | **124** | <1 | **29** | **827** | **6** | **36** | **2** | **9** |
| Magnesium | mg/L | **58** | **2** | **28** | **401** | **4** | **51** | **3** | **3** |
| Sodium | mg/L | **746** | **72** | **626** | **3360** | **104** | **660** | **88** | **228** |
| Potassium | mg/L | **29** | **2** | **18** | **67** | **6** | **10** | **4** | **4** |
| Aluminium | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Arsenic | mg/L | <0.001 | <0.001 | <0.001 | **0.002** | <0.001 | <0.001 | <0.001 | **0.001** |
| Cadmium | mg/L | <0.0001 | <0.0001 | <0.0001 | <0.0001 | **0.0001** | <0.0001 | <0.0001 | <0.0001 |
| Chromium | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | **0.003** | <0.001 |
| Cobalt | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | **0.002** | <0.001 | **0.002** | <0.001 |
| Copper | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | **0.002** | **0.03** |
| Lead | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | **0.008** |
| Manganese | mg/L | **0.04** | **0.002** | **0.35** | **0.91** | **0.09** | **0.01** | **0.003** | **0.04** |
| Molybdenum | mg/L | **0.003** | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | **0.001** |
| Nickel | mg/L | **0.002** | **0.002** | **0.002** | **0.006** | **0.002** | **0.001** | **0.003** | <0.001 |
| Selenium | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Silver | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Uranium | mg/L | <0.001 | <0.001 | <0.001 | **0.003** | <0.001 | <0.001 | <0.001 | <0.001 |
| Vanadium | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Zinc | mg/L | <0.005 | <0.005 | <0.005 | <0.005 | **0.03** | **0.411** | **0.432** | **0.556** |
| Boron | mg/L | **0.49** | **0.07** | **0.16** | **1.59** | **0.09** | **0.22** | **0.05** | **0.28** |
| Iron | mg/L | **0.99** | <0.05 | **1.98** | **7.58** | **0.30** | **0.25** | **0.07** | **0.09** |
| Mercury | mg/L | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 |
| Fluoride | mg/L | **0.7** | **0.1** | **0.3** | **0.4** | **0.2** | <0.1 | <0.1 | **0.5** |
| Ammonia as N | mg/L | **0.87** | <0.01 | **0.08** | **0.22** | **0.03** | <0.01 | <0.01 | **0.22** |
| Nitrite as N | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Nitrate as N | mg/L | <0.01 | **0.1** | <0.01 | <0.01 | **0.05** | **0.33** | **0.22** | <0.01 |
| Total Phosphorus as P | mg/L | **0.03** | **0.01** | **0.02** | <0.05 | **0.02** | <0.01 | <0.01 | **0.01** |
| C6 - C9 Fraction | µg/L | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 |
| C6 - C10 Fraction | µg/L | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 |
| >C10 - C40 Fraction (sum) | µg/L | **200** | <100 | <100 | <100 | <100 | <100 | <100 | **660** |
| Sum of BTEX | µg/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | **4** |

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|---|---|---|---|---|---|---|---|---|---|
| **Matrix:** | **Sample Type:** | **REG** | **REG** | **REG** | **REG** | **REG** | **REG** | **REG** | **REG** |
| **Project name/number:** | **Sample Date:** | 29/04/2020 | 24/04/2020 | 24/04/2020 | 24/04/2020 | 29/04/2020 | 29/04/2020 | 25/04/2020 | 14/05/2020 |
| | **Client sample ID (1st):** | C9180125SPR | C9553P1R | C975SP | C9838SPR | C9845SPR | C9849SPR | HD02 | HD03A |
| | **Hydro-Stratigraphic unit** | Joe-Joe | Rewan | Colinlea SSt | Rewan | Tertiary | Colinlea SSt | Clematis Sst | Clematis SSt |
| **Analyte grouping/Analyte** | **Unit** | | | | | | | | |
| pH Value | pH Unit | **8.3** | **6.6** | **6.6** | **6.2** | **6.8** | **8.1** | **8.0** | **7.8** |
| Electrical Conductivity @ 25°C | µS/cm | **891** | **387** | **584** | **392** | **1850** | **2760** | **612** | **698** |
| Total Dissolved Solids @180°C | mg/L | **524** | **264** | **346** | **251** | **1160** | **1550** | **367** | **392** |
| Total Alkalinity as CaCO3 | mg/L | **289** | **59** | **38** | **16** | **57** | **252** | **124** | **112** |
| Sulfate as SO4 - Turbidimetric | mg/L | **2** | **22** | **28** | **9** | **59** | <1 | **6** | **12** |
| Chloride | mg/L | **124** | **74** | **154** | **110** | **582** | **798** | **128** | **149** |
| Calcium | mg/L | **9** | **1** | **2** | **2** | **5** | **39** | **2** | **4** |
| Magnesium | mg/L | **3** | **6** | **6** | **6** | **18** | **22** | **1** | **2** |
| Sodium | mg/L | **203** | **67** | **100** | **63** | **425** | **659** | **117** | **136** |
| Potassium | mg/L | **4** | **3** | **5** | **3** | **8** | **23** | **13** | **15** |
| Aluminium | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Arsenic | mg/L | <0.001 | **0.002** | <0.001 | <0.001 | <0.001 | <0.001 | **0.007** | <0.001 |
| Cadmium | mg/L | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 |
| Chromium | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | **0.002** | <0.001 | <0.001 | <0.001 |
| Cobalt | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | **0.002** | <0.001 |
| Copper | mg/L | <0.001 | **0.002** | <0.001 | <0.001 | **0.02** | **0.002** | <0.001 | <0.001 |
| Lead | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Manganese | mg/L | **0.039** | **0.126** | **0.069** | **0.002** | **0.002** | **0.289** | **0.282** | **0.429** |
| Molybdenum | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | **0.007** | <0.001 | <0.001 |
| Nickel | mg/L | <0.001 | <0.001 | **0.005** | **0.003** | **0.004** | **0.004** | <0.001 | <0.001 |
| Selenium | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Silver | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Uranium | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Vanadium | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Zinc | mg/L | **0.043** | <0.005 | **0.005** | <0.005 | **0.009** | **0.023** | <0.005 | **0.04** |
| Boron | mg/L | **0.18** | <0.05 | **0.1** | <0.05 | **0.21** | **0.19** | **0.05** | **0.1** |
| Iron | mg/L | <0.05 | **1.72** | **0.06** | <0.05 | <0.05 | <0.05 | **0.29** | **0.61** |
| Mercury | mg/L | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 |
| Fluoride | mg/L | **0.5** | **0.2** | **0.2** | <0.1 | **0.2** | **0.3** | **0.2** | **0.2** |
| Ammonia as N | mg/L | **0.19** | **0.13** | <0.01 | <0.01 | <0.01 | | **0.08** | **0.17** |
| Nitrite as N | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | <0.01 | <0.01 |
| Nitrate as N | mg/L | <0.01 | **0.02** | **0.07** | **0.24** | **0.15** | | <0.01 | <0.01 |
| Total Phosphorus as P | mg/L | <0.01 | **0.16** | <0.01 | <0.01 | **0.02** | | **0.14** | **0.08** |
| C6 - C9 Fraction | µg/L | <20 | <20 | <20 | <20 | <20 | | <20 | <20 |
| C6 - C10 Fraction | µg/L | <20 | <20 | <20 | <20 | <20 | | <20 | <20 |
| >C10 - C40 Fraction (sum) | µg/L | <100 | **180** | <100 | <100 | <100 | | <100 | <100 |
| Sum of BTEX | µg/L | <1 | <1 | <1 | <1 | <1 | | <1 | <1 |

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|---|---|---|---|---|---|---|---|---|---|
| **Matrix:** | **Sample Type:** | **REG** | **REG** | **REG** | **REG** | **REG** | | | |
| **Project name/number:** | **Sample Date:** | 14/05/2020 | 25/04/2020 | 14/05/2020 | 28/04/2020 | 25/04/2020 | | | |
| | **Client sample ID (1st):** | HD03B | Joshua Sprir | Little Moses S | Melaluka Sprin | Moses Spring | | | |
| | **Hydro-Stratigraphic unit** | Alluvium | | | | | | | |
| **Analyte grouping/Analyte** | **Unit** | | | | | | | | |
| pH Value | pH Unit | **7.8** | **7.4** | **6.8** | **6.3** | **7.4** | | | |
| Electrical Conductivity @ 25°C | µS/cm | **773** | **544** | **595** | **569** | **580** | | | |
| Total Dissolved Solids @180°C | mg/L | **452** | **303** | **328** | **326** | **320** | | | |
| Total Alkalinity as CaCO3 | mg/L | **128** | **117** | **33** | **10** | **155** | | | |
| Sulfate as SO4 - Turbidimetric | mg/L | **10** | **9** | **5** | **17** | <1 | | | |
| Chloride | mg/L | **163** | **116** | **163** | **175** | **88** | | | |
| Calcium | mg/L | **1** | **11** | **3** | **4** | <1 | | | |
| Magnesium | mg/L | **2** | **3** | **12** | **10** | <1 | | | |
| Sodium | mg/L | **155** | **85** | **91** | **115** | **118** | | | |
| Potassium | mg/L | **16** | **19** | **10** | **6** | **9** | | | |
| Aluminium | mg/L | <0.01 | <0.01 | **0.02** | **0.02** | **0.1** | | | |
| Arsenic | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | | | |
| Cadmium | mg/L | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | | | |
| Chromium | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | | | |
| Cobalt | mg/L | <0.001 | <0.001 | **0.0020** | **0.0020** | <0.001 | | | |
| Copper | mg/L | <0.001 | <0.001 | <0.001 | **0.0010** | <0.001 | | | |
| Lead | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | | | |
| Manganese | mg/L | **0.139** | **0.044** | **0.024** | **0.005** | **0.0020** | | | |
| Molybdenum | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | | | |
| Nickel | mg/L | <0.001 | <0.001 | **0.0040** | **0.0030** | <0.001 | | | |
| Selenium | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | | |
| Silver | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | | | |
| Uranium | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | | | |
| Vanadium | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | | |
| Zinc | mg/L | <0.005 | <0.005 | <0.005 | **0.01** | <0.005 | | | |
| Boron | mg/L | **0.13** | **0.06** | **0.11** | **0.1** | <0.05 | | | |
| Iron | mg/L | **0.66** | <0.05 | **0.20** | <0.05 | **0.09** | | | |
| Mercury | mg/L | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | | | |
| Fluoride | mg/L | **0.4** | **0.4** | **0.1** | <0.1 | **0.3** | | | |
| Ammonia as N | mg/L | **0.13** | <0.01 | **0.02** | **0.02** | <0.01 | | | |
| Nitrite as N | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | | |
| Nitrate as N | mg/L | <0.01 | **0.21** | <0.01 | <0.01 | <0.01 | | | |
| Total Phosphorus as P | mg/L | **0.14** | <0.01 | **0.03** | **0.61** | **0.12** | | | |
| C6 - C9 Fraction | µg/L | <20 | <20 | <20 | <20 | <20 | | | |
| C6 - C10 Fraction | µg/L | <20 | <20 | <20 | <20 | <20 | | | |
| >C10 - C40 Fraction (sum) | µg/L | <100 | <100 | <100 | **130** | <100 | | | |
| Sum of BTEX | µg/L | <1 | <1 | <1 | <1 | <1 | | | |