

Pumping well:
Test date:

Rated by:
Rating Date:

Quality Assurance Rating (Reliability) (Completed by Hawke's Bay Regional Council)

Introduction

Quality assurance primarily rated on objective values and secondarily on subjective information. There are three steps in the rating process. Step one determines if there is minimum information to warrant any reliability. Step two is an individual assessment of quality assurance criteria. Step three sums the total points to determine the applicable rating as reliable (1), some reliability (2), or unreliable (3).

Step 1 Unable to verify if missing or unknown. The default rating "unreliable."

- Drawdown and time data available for future analysis
- Reported pumping rate
- Reported distance from pumping well to observation well

Step 2 Write applicable points for each aquifer test criteria in the adjacent box.

- Test type A test with one rate is more reliable than a test with several rates.
 1. Step drawdown test or unknown
 2. Constant discharge test
 3. Constant discharge test, using drawdown data from at least one observation well
- Test duration Test data over a longer time period gives better coverage of the type curve or straight-line.
 1. less than 4 hours or unknown
 2. greater than (or equal to) 4 hours; less than 24 hours
 3. greater than (or equal to) 24 hours
- Controls These give validity to test results. One point for each of the following.
 - Test managed onsite by person analysing data
 - Well completion records (well screen, geologic logs, etc.) exist and are provided
 - Pumping rate kept constant (as confirmed by test managed onsite by person analysing data)
- Reported information These are required for future analysis and data archival. One-half point for each.
 - test date
 - saturated aquifer thickness
 - initial water level
 - map of test site
 - data plotted as time-drawdown, semi-log and/or log-log graph
 - calculations
- Data reasonableness Data that closely fits the curve or line gives greater assurance for interpretation.
 1. data poorly fits the type curve, straight line, etc.
 2. data fits part of the type curve, straight line, etc.
 3. data fits type curve well, straight line, etc.
- Analysis method validity The most valid analysis method gives the most valid result.
 1. invalid or unknown method
 2. some validity
 3. most valid method

Step 3 Add individual criteria points and enter total below.

- Total Points for Quality Assurance Ratings:
 - 1 (17 - 22 points) is reliable
 - 2 (11 - 16 points) has some reliability
 - 3 (1 - 10 points) is unreliable