

STEP DRAWDOWN AQUIFER TEST SUMMARY

Mandatory—applicant must complete	Leave blank—Council completes	Additional information appreciated
-----------------------------------	-------------------------------	------------------------------------

Pumping well
 Report number
 Test date/...../.....

Town
 District
 Location E.....N.....

Test results

Transmissivitym²/d Hydraulic conductivitym/d

With observation wells:

Well number	Distance from pumping well (m)	Storativity	Confining layer's vertical hydraulic conductivity (m/d)

Step-discharge test coefficients

Linear aquifer/well loss coefficient $B(r_{ew}, t)$ d/m²
 aquifer loss $B_{1(rw, t)}$ d/m²
 well loss B_2 d/m²
 Non-linear well-loss Cd²/m⁵

Other

Well efficiency%
 Maximum long term pumping ratel/s

Supplemental information

Aquifer saturated thicknessm
 Confining layer thicknessm
 Water chemistry collection and analysis Field values Laboratory analysis

Analysis method

Confined
 Eden-Hazel
 Other

General
 Hantush-Bierschenks
 Rorabaugh
 Sheahan
 Other

Data corrections

Tidal
 Antecedent trend (natural water-level fluctuation)
 Barometric efficiency (confined analysis)
 Jacob modification of confined for unconfined

Boundaries
 Well interference
 Other

Step results

Step number	Pumping rate (l/s)	Step duration (min)	Drawdown (m)	Drawdown increment (m)	Specific drawdown (d/m ²)	Specific capacity ((l/s)/m)

Comments

.....

.....

Test commissioned by
 Test undertaken by
 Test analysed by

Reliability rating:
 Rated by/date:

INSTRUCTIONS

Step Drawdown Aquifer Test Summary Form

(Record and report information where known; leave blank where unknown.)

1. Unit definitions: d, day; l, litre; m, metre; min, minute; s, second
2. Report number Hawke's Bay Regional Council will assign a unique number.
3. Test date The date the test starts
4. Town nearest town or city
5. Location Give easting (E) and northing (N), such as E2828062 and N6166360
6. Test Results
 - 6.1. With observation wells record data in this section only if observation wells were measured
7. Step-discharge test coefficients
 - 7.1. $B(r_{ew,t})$, $B_{1(rw,t)}$, and B_2 are described in *Kruseman and de Ridder, 1991*
8. Supplemental information
 - 8.1. Aquifer saturated thickness value for each observation well
 - 8.2. Confining layer thickness value for each observation well
 - 8.3. Water chemistry collection and analysis Tick whether field values (pH, electrical conductance, alkalinity, dissolved oxygen) were measured OR samples were collected for lab analysis.
9. Analysis methods Tick every method used for every well analysis; record any other method under "other"
10. Data corrections Tick every correction method used for every well analysis
11. Step results
 - 11.1. Discharge is the pumping rate for the step.
 - 11.2. Step duration is how long it was pumped at the step.
 - 11.3. Drawdown is the drawdown at the end of the step.
12. Comments Describe general details that limit test or analysis validity, such as unreadable data, poor weather, damaged equipment, data matches poorly with type curves, early time data is erratic, etc.
13. Test commissioned by The party that paid for the test
14. Test undertaken by The party that performed the test.
15. Test analysed by The party that solved for aquifer characteristic values.
16. Reliability Rating is to be done by Hawke's Bay Regional Council, based on test rating form.