Section 4. Discharge

The DISCHARGE or WITHDRAWAL record is used to store water-level and discharge data needed to estimate well performance for both flowing and pumped sites. The table name for discharge data is GW_DISC_##. The DISCHARGE record is coded as follows:

Sub-Section	Attribute Name	Description
4.1	agency_cd	Source agency code (C4) MANDATORY
4.2	site_no	Site identification number (C1) MANDATORY
4.3	disc_seq_nu	Record sequence number(C147) MANDATORY
4.4	disc_dt	Date discharge measured (C148) MANDATORY
4.5	disc_cn	Person creating record (C430)
4.6	disc_cr	Date and time created (C431)
4.7	disc_mn	Person updating record (C432)
4.8	disc_md	Date and time of last update (C702)
4.9	disc_web_cd	Record ready for Web (C859)
4.10	disc_tp	Type of discharge -- pump or flow (C703) MANDATORY
4.11	disc_va	Discharge, in gpm (C150) MANDATORY
4.12	disc_acy_cd	Accuracy of discharge measurement (C310)
4.13	disc_src_cd	Source of discharge data (C151)
4.14	disc_meth_cd	Method discharge measured (C152) MANDATORY
4.15	disc_prod_lev_va	Producing water level (C153)
4.16	disc_static_lev_va	Static water level (C154)
4.17	disc_lev_src_cd	Source of water-levels data (C155)
4.18	disc_lev_meth_cd	Method water levels measured (C156)
4.19	disc_du	Duration of discharge before producing level (C157)
4.20	spec_cap_va	Specific capacity (C272)
4.21	drawdown_va	Drawdown (C309)

4.1 Source Agency Code
(DIAGY/C4 - MANDATORY PRIMARY-KEY CHAR X(5) -- agency_cd):

This is the agency that reported the data. The reporting agency is mandatory and a part of the primary key. Data for the site will not be stored if this field is blank.

4.2 Site Identification Number
(DIID/C1 - MANDATORY PRIMARY-KEY CHAR X(15) -- site_no):

This is the 15-digit site identification (Site ID) number of the site to which the discharge data applies. If the site has not been entered into the Sitefile, this operation must be completed before the discharge data are input. Site ID is mandatory and a part of the primary key. Data for the site will not be stored if this field is blank.

4.3 Record Sequence Number
(DISEQ/C147 - MANDATORY CHAR X(3) -- disc_seq_nu):

Each entry of production data for a site must have an identifying number in this space. The numbers do not have to be in sequence, but a number may be used only one time at a

site. The entry number is mandatory; production data will not be stored if the field is blank.

4.4 Date Discharge Measured
(DIDTE/C148 - SK3 - MANDATORY CHAR X(8) -- disc_dt):

Enter the date on which the discharge data were determined. If the day and/or month are not known, enter blanks in the spaces. Use leading zeros for values of month or day less than ten, and specify all four digits of the year. This field is mandatory.

4.5 Person Creating Record
(DICUID/C430 - CHAR X(8) -- disc_cn):

This contains the user identification of the person creating the record. The user ID is entered automatically by the NWIS software.

4.6 Date and Time Created
(DICRDT/C431 - CHAR X(14) -- disc_cr):

This contains the date and time the record was created. The date and time are entered automatically by the NWIS software.

4.7 Person Updating Record
(DIUUID/C432 - CHAR X(8) -- disc_mn):

This contains the user identification of the person who last updated the record. The user ID is entered automatically by the NWIS software.

4.8 Date and Time of Last Update
(DIUPDT/C702 - CHAR X(14) --disc_md):

This contains the date and time the record was last updated. The date and time are entered automatically by the NWIS software.

4.9 Record Ready for Web
(DIWBFG/C859 - CHAR X(1) -- disc_web_cd):

This field contains the status and availability of a record for display on the World-Wide-Web. 'Y' is the default. Only records flagged with a 'Y' are made available on the Web. The codes and their descriptions are:

Code	Description
Y	Yes-Record has been checked and is ready for Web display.
C	Conditional-Record has not been checked. No Web display.
P	Proprietary Record. No Web display.
L	Local use only. No Web display.

4.10 Type of Discharge
(DITYPE/C703 - MANDATORY SECONDARY-KEY CHAR X(1) -- disc_tp):

Enter the code for type of discharge recorded in the record. This field is mandatory.

Code	Description
P	Pumped discharge
F	Flow discharge

4.11 Discharge
(DIVAL/C150 - MANDATORY SECONDARY-KEY CHAR X(10) -- disc_va):

Enter the discharge from the site in gallons per minute. If discharge is determined in other units (such as cfs or metric units), convert to gallons per minute. Two decimal places are provided for very small discharges. Discharge is a mandatory entry; production data will not be stored if this field is blank.

4.12 Accuracy of Discharge Measurement
(DIACY/C310 – CHAR X(1) – disc_acy_cd):

Enter the estimated accuracy of the discharge measurement.

Code	Description
E	Excellent (less than 2%)
G	Good (2% - 5%)
F	Fair (5% - 8%)
P	Poor (greater than 8%)

4.13 Source of Data
(DISRC/C151 - CHAR X(1) -- disc_src_cd):

Enter the code that indicates who furnished the data. The codes are the same as those for source-of-depth data (SWDSRC-C29) (see *Source of Depth Data – Section 1.53* under Sitefile Components).

4.14 Method of Discharge Measurement
(DIMET/C152 - MANDATORY CHAR X(1) -- disc_meth_cd):

Enter the code that best describes the method used to determine the discharge. This field is mandatory. The codes are:

Code	Description
A	Acoustic meter (transient-time meter)
B	Discharge measured with a bailer
C	Current meter--either propeller-type meter in the discharge pipe, or propeller- or cup-type meter in the discharge channel.
D	Doppler meter
E	Estimated
F	Flume measurement
M	Totaling meter
O	Orifice measurement
P	Pitot-tube meter, includes Cox meter, Collins meter, and the like.
R	Reported, method not known
T	Trajectory method (free-fall method)
U	Venturi meter measurement
V	Volumetric measurement: bucket or barrel and stopwatch
W	Weir measurement
X	Unknown
Z	Other

4.15 Production Level
(DIPROD/C153 - CHAR X(8) -- disc_prod_lev_va):

Enter the water level, in feet below land surface, while the well was discharging. The difference between this value and the value for the next entry, static level, will be the drawdown. If the discharge is by natural flow, the production level (if measurable) is the head above land surface preceded by a minus sign (-).

4.16 Static Level
(DISTAT/C154 - CHAR X(8) -- disc_static_lev_va):

Enter the static water level, in feet below land surface. If the static level is above land surface, enter the head above land surface (if measurable) preceded by a minus sign (-).

4.17 Source of Data
(DILVSC/C155 - CHAR X(1) -- disc_lev_src_cd):

Enter the code indicating who provided the water-level data. The codes are the same as those used for source-of-depth data (SWDSRC/C29). (see *Source of Depth Data – Section 1.53*).

4.18 Method of Water-Level Measurement
(DILVME/C156 - CHAR X(1) -- disc_lev_meth_cd):

Enter the code indicating the method by which the water levels were determined. If the static level and the production level were measured by different methods, record the method considered least accurate.

Code	Description
A	Airline measurement
B	Analog or graphic recorder
C	Calibrated airline measurement
E	Estimated
F	Transducer
G	Pressure-gage measurement
H	Calibrated pressure-gage measurement
L	Interpreted from geophysical logs
M	Manometer measurement
N	Non-recording gage
R	Reported, method not known
S	Steel-tape measurement
T	Electric-tape measurement
U	Unknown
V	Calibrated electric-tape measurement
Z	Other

4.19 Pumping Period
(DIDUR/C157 - CHAR X(7) -- disc_du):

Enter the length of time, in hours, that the well was pumped prior to the measurement of production level. One decimal place is provided for times shorter than one hour.

4.20 Specific Capacity
(DISPCP/C272 - CHAR X(8) -- spec_cap_va):

The specific capacity of a well is the rate of discharge of water from the well divided by the drawdown of water level within the well (Lohman and others, 1972, p. 11).

If production or static levels are not known, but a specific capacity value is available, record that value in this field. Space is provided for recording precision to hundredths of a drawdown (gal/min)/ft. Specific capacity will be automatically computed and stored if discharge and drawdown are known.

4.21 Drawdown
(DIDRON/C309 - CHAR X(8) -- drawdown_va):

The drawdown, in feet, observed in a pumping well is the static level minus pumping level. Drawdown will be automatically computed and stored if production and static levels are known.