133119144491771 Local number EX-7 Wettengel, Guam

LOCATION.--Lat 13°31'24.0", long -144°49'26.3" referenced to North American Datum of 1983, Guam County, Hydrologic Unit is unknown, 200 ft east of junction of Routes 1 and 3, Wettengel.

GROUNDWATER RECORDS

WELL CHARACTERISTICS.--Drilled depth 698 feet. Well was initially finished as an open borehole with a short section (10 ft) of 6-inch steel casing. Well was cased in 1999 with 5-inch slotted PVC casing with gravel pack within the saturated zone, and 5-inch solid PVC casing with bentonite and concrete seal through the unsaturated zone. Well depth after casing: 495 feet (must have been back-filled about 200 feet with gravel). At the surface, a short piece of 10-inch steel casing rises a few inches above the top of the PVC casing, to provide a surface seal and a lockable cap.

DATUM.--Altitude of land-surface datum is 283 ft. Measuring point: top of 5-in. diameter PVC inner casing, 282.93 ft above mean sea level.

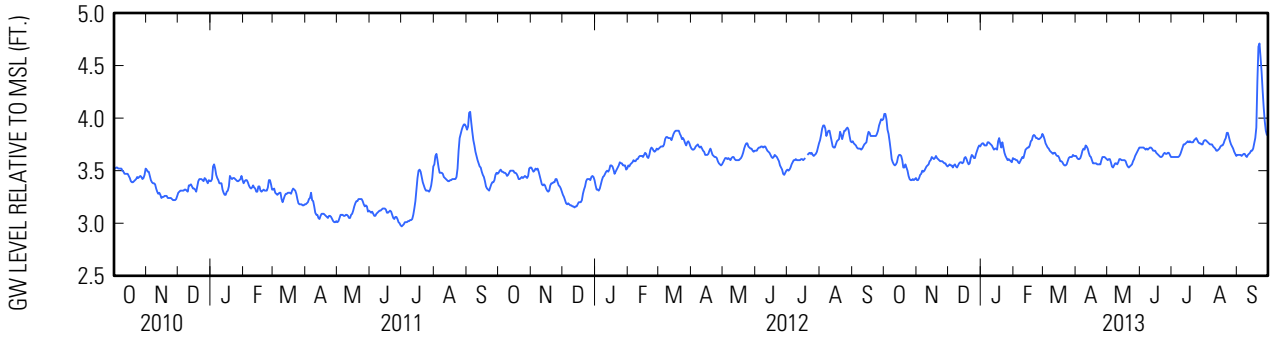
PERIOD OF RECORD.--Water level: Occasional measurements, August 1981 to May 1983. Water-level recorder, June 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.56 ft. above mean sea level, June 29, 2004; lowest, 2.45 ft. above mean sea level, April 12, 2003.

133119144491771 Local number EX-7 Wettengel, Guam—Continued

GROUNDWATER LEVEL RELATIVE TO MEAN SEA LEVEL (MSL), FEET
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	4.04	3.41	3.55	3.75	3.61	3.83	3.64	3.60	3.72	3.63	3.79	3.65
2	4.04	3.41	3.56	3.76	3.61	3.80	3.62	3.61	3.72	3.63	3.79	3.65
3	3.99	3.43	3.55	3.76	3.60	3.76	3.61	3.61	3.72	3.63	3.78	3.65
4	3.89	3.46	3.55	3.74	3.60	3.74	3.61	3.58	3.72	3.63	3.77	3.65
5	3.85	3.47	3.53	3.74	3.58	3.72	3.62	3.54	3.71	3.63	3.76	3.64
6	3.78	3.50	3.55	3.74	3.57	3.71	3.65	3.53	3.70	3.63	3.75	3.65
7	3.70	3.49	3.56	3.77	3.59	3.69	3.69	3.55	3.71	3.63	3.75	3.66
8	3.61	3.50	3.54	3.77	3.61	3.68	3.71	3.57	3.70	3.64	3.75	3.66
9	3.58	3.52	3.53	3.76	3.63	3.67	3.70	3.57	3.71	3.66	3.73	3.64
10	3.56	3.54	3.55	3.75	3.62	3.66	3.74	3.56	3.72	3.69	3.72	3.63
11	3.55	3.55	3.57	3.74	3.66	3.67	3.73	3.58	3.72	3.72	3.71	3.65
12	3.56	3.56	3.58	3.72	3.70	3.67	3.71	3.61	3.71	3.75	3.69	3.66
13	3.58	3.59	3.58	3.70	3.71	3.65	3.67	3.61	3.69	3.75	3.69	3.67
14	3.63	3.60	3.57	3.71	3.72	3.64	3.64	3.60	3.69	3.76	3.70	3.69
15	3.65	3.63	3.58	3.71	3.72	3.64	3.63	3.60	3.69	3.77	3.71	3.69
16	3.65	3.62	3.62	3.70	3.74	3.62	3.60	3.60	3.67	3.78	3.73	3.71
17	3.64	3.61	3.63	3.78	3.78	3.59	3.57	3.60	3.66	3.77	3.74	3.76
18	3.60	3.62	3.61	3.81	3.79	3.59	3.57	3.59	3.65	3.78	3.74	3.81
19	3.53	3.64	3.58	3.76	3.83	3.58	3.57	3.56	3.64	3.77	3.76	3.91
20	3.53	3.62	3.56	3.72	3.84	3.56	3.57	3.54	3.63	3.77	3.79	4.35
21	3.56	3.61	3.57	3.77	3.83	3.55	3.56	3.53	3.63	3.77	3.81	4.68
22	3.53	3.60	3.62	3.72	3.81	3.55	3.56	3.54	3.64	3.79	3.86	4.71
23	3.50	3.59	3.65	3.67	3.81	3.56	3.56	3.55	3.66	3.80	3.86	4.58
24	3.45	3.59	3.64	3.64	3.80	3.59	3.56	3.56	3.67	3.81	3.82	4.44
25	3.42	3.59	3.62	3.62	3.80	3.62	3.60	3.59	3.66	3.79	3.78	4.26
26	3.41	3.58	3.62	3.60	3.81	3.63	3.63	3.61	3.66	3.77	3.75	4.10
27	3.41	3.57	3.66	3.61	3.82	3.63	3.63	3.64	3.67	3.76	3.73	3.97
28	3.42	3.57	3.69	3.60	3.85	3.63	3.63	3.66	3.67	3.76	3.71	3.88
29	3.41	3.55	3.72	3.59	---	3.65	3.62	3.68	3.65	3.75	3.68	3.84
30	3.42	3.54	3.74	3.58	---	3.64	3.61	3.70	3.63	3.75	3.66	3.85
31	3.43	---	3.73	3.62	---	3.64	---	3.72	---	3.78	3.64	---
Mean	3.61	3.55	3.60	3.71	3.72	3.65	3.63	3.59	3.68	3.73	3.75	3.89
Max	4.04	3.64	3.74	3.81	3.85	3.83	3.74	3.72	3.72	3.81	3.86	4.71
Min	3.41	3.41	3.53	3.58	3.57	3.55	3.56	3.53	3.63	3.63	3.64	3.63



133119144491771 Local number EX-7 Wettengel, Guam—Continued

133119144491771 Local number EX-7 Wettengel, Guam—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

Specific-conductance profiles using a conductivity-temperature-pressure sensor (CTD): 2000 to present. Unpublished records available upon request.

Fixed-depth specific-conductance continuous record data, May 2004 to February 2005, as part of the Northern Guam Lens Groundwater Monitoring study.

Discrete-depth sampling, analysis for specific conductance and chloride concentration: 1982-1996. Unpublished records available upon request.

Fluid-resistivity profiles: 1982 to 1984. Unpublished records available upon request.

INSTRUMENTATION.--Water-quality monitor with recorder set to approximately 1-second recording interval. Monitor is trolled over the total depth of the well.

REMARKS.--Two specific-conductance profiles were measured during the water year 2013; one at the end of the wet season on January 15, 2013, and one at the end of the dry season on July 22, 2013.

The CTD specific-conductance measurements are checked against standards. The specific-conductance measurements in the profiles have not been adjusted based on the check measurements; however, the data are available to make adjustments.

Depth is measured using a combination of a marked and calibrated cable and pressure readings from the CTD.

133119144491771 Local number EX-7 Wettengel, Guam—Continued