# SSHCZO Metadata Worksheet

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| Data File Name | **SH\_Well\_W7.csv** |
| Date Prepared | 2017-10-19 |
| Descriptive Title | Well 7 |
| Update Frequency | Quarterly |
| Abstract | Groundwater level data and water temperature for well 7 are measured every 30 minutes 2014-05-19 to 2017-01-19 and changed to every 15 minutes starting 2017-05-31. Data are measured using a HOBO U20-001-01 non-vented pressure transducer. Recorded data began 2014-05-19 through present. |
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| Data Value Descriptions | * COL1: label = TmStamp\_UTC; Timezone = UTC
* COL2: label = WaterTemp\_C; water temperature; Units = degC
* COL3: label = WL\_BLG\_m; water level below ground; Units = meters
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| Keywords | Groundwater Depth, Groundwater Temperatures, Hydrology |
| Methods | Groundwater level measurements are recorded every 15 to 30 minutes on a HOBO U20-001-01 non-vented pressure transducer. Data are manually downloaded monthly using HOBO-Ware Pro software. Sensor depth is calculated in the software by processing with barometric pressure data recorded on a separate HOBO U20-001-01 pressure transducer. Water level below ground determined using the suspended cable length to sensor below ground and taking the difference of the SensorDepth\_m [WL\_BLG\_m = 3.45 - SensorDepth\_m]. well_diagramTOC above land surface = 0.44 metersSensor level down borehole from MP = 3.15 metersSensor below ground level = 2.71 metersCasing type = pvcQuality control:Data were checked by graphing data in R package and comparing to precipitation and manual water level measurements using a Solinist electric tape. Data are corrected to the manual measurements and prorated between visits. Bad, missing, or erroneous data values were removed or marked with -9999 which could be caused during data downloads and/or malfunctioning sensors. ISCO sampling: Data that fluctuate during autosampler run times remain in the data set for comparison during the actual sample times and for response time evaluations. Periods of autosampler running:2016-07-16 to 2016-08-142016-08-21 to 2016-08-232016-09-162016-09-29 to 2016-10-052016-10-20 to 2016-11-022016-11-21 to 2016-12-132017-01-01 to 2017-01-132017-03-24 to 2017-04-16Data gaps:2014-09-23 to 2015-10-27; sensor was filled previously and data were lost2017-01-19 to 2017-05-31; sensor removed for repair2018-01-13 to 2018-01-17: values removed; exceeded well depth and overall TOC heightOther notes:2018-02-06 to 2018-03-09: a 0.49 constant correction was added for this time period due to  Sensor cable found lying partially out of well casing. Length of cable measured was 0.49 meters and corroborated by the raw data.   |
| Sites | Shale Hills Valley northing/easting: 147812.839/ 586833.395; DMS: 40.664444, -77.905712 (NAD\_1983\_StatePlane\_Pennsylvania\_South\_FIPS\_3702); Elevation 265 meters |
| Publications | none |
| Citation | The following acknowledgment should accompany any publication or citation of these data: Logistical support and/or data were provided by the NSF-supported Susquehanna Shale Hills Critical Zone Observatory. |
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