R12 Column ID, Explanation, Status

COLUMN	COLUMN HEADER	COLUMN CONTENTS	EXPLANATION/CONSIDERATION	September 2023 Status/Discussion
A	STA_NAME	Station Name	Station name from PEGASIS as primary source. Some locations have information for database purposes such as MW's that were originally logged with different name ID. TVA locations are hyphenated to comply with rules from modeling programs and hence do not match PEGASIS records 1:1. IGS location names are equivalent to API numbers per IGS-API#. Some AH- borings from recent years PEGASIS postings were originally entered as JQ- numbers to correspond to Geologic Quadrangle location identifiers. Point locations from surrounding geologic quadrangle maps are identified by Quadrangle plus number identifiers.	Recently updated and checked by record matching recent PEGASIS updates
B	SITEX	PGDP Easting Coordinates	From PEGASIS or PEGASIS coordinate conversion	
C	SITEY	PGDP Northing Coordinates	From PEGASIS or PEGASIS coordinate conversion	
D	X_SPLANE_E_ft	KY State Plane South Coordinates (ft.) northing	PGDP location data obtained from PEGASIS in NAD 83 KY State Plane South (1602) feet coordinates. Other locations converted from various coordinate systems/projections using KGS Coordinate Conversion tool. Location from Geologic Quadrangle maps were digitized utilizing geo-referenced GQ's in ARCMap.	Updated and checked by column matching PEGASIS xy data including apparent tweaks to coordinate system and/or datum. Locations based on GQ data upated recently with geo-referenced GQ's. TVAF and boring location data recently updated to locations and table data on USGS GQ-652.
E	Y_SPLANE_N_ft	KY State Plane South Coordinates (ft.) easting	PGDP location data obtained from PEGASIS in NAD 83 KY State Plane South (1602) feet coordinates. Other locations converted from various coordinate systems/projections using KGS Single and Multiple Point Coordinate Conversion tool. Locations from Geologic Quadrangle maps were digitized utilizing geo-referenced GQ's in ARCMap.	Above
F	ELEVATION	Elevation of ground surface at data point (ft. amsl)	Elevation (ft. amsl) taken from PGDP lithologic logs and/or project document tables when available. When not available, KY 2013 LIDAR was used to digitize and/or query point elevations. IGS location elevations obtained from API records. Records from locations in adjacent KY GQ's were obtained using LIDAR and were estimated from topographic and geologic quadrangle maps if outside project LIDAR footprint. PADCAD site engineering plots were utilized in early log compilation work and are still used as reference to verify original site location elevations.	R12 elevation data recently updated with resurvey data from the FRNP document 'MONITORING WELLS AND PIEZOMETERS ELEVATIONS' (DAC-ENV-FA5480-0010 RI). Other records checked by matching against recent PEGASIS and LIDAR updates (Sept-Oct 2020 - August 2023)
G	ELEV SOURCE	Source(s) of information used for elevation in this database	Identification of elevation source(s)	Updated 2023
H	TD	Depth of boring (ft.)	From completed (ending) depth of lithologic logs entered into database	R12 data recently updated via check by record matching against End_of_Boring lithologic description records
I	FROM	Start of interval below ground surface (ft. bgs)	The upper depth from ground surface of a lithologic log interval	Up to date. Checked routinely when used for interval ID of materials, ID of stratigraphic and HGU tops and thicknesses
J	TO	End of interval below ground surface (ft. bgs)	The end depth from ground surface of a lithologic log interval	above
K	MP_FROMTO	Midpoint of interval below ground surface (ft. bgs)	The calculated midpoint depth from ground surface of a lithologic log interval	above

R12 Column ID, Explanation, Status (cont'd)

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L	**IntervaltopELEV**	Elevation (ft. amsl) of the top of interval	The upper elevation (ft. amsl) of a lithologic log interval	Up to date. Amended/corrected as necessary when used for interval ID of materials, ID of stratigraphic and HGU tops and thicknesses
M	**IntervalbotELEV**	Elevation (ft. amsl) of the base of interval	The base elevation of a lithologic log interval	above
N	**IntervalMPELEV**	Elevation (ft. amsl) of the interval midpoint	The midpoint elevation of a lithologic log interval	above
O	**Thickness**	Vertical thickness of interval (ft.)	The calculated thickness of each interval. IntervaltopELEV - Interval botELEV	Aquifer and aquitard units checked at start of each editing session and during proofing of R12 surface and isopach plots.
P	**Primary_Matl**	Short Material ID - 2 digits	Material identifier using standard material abbreviations for primary material only in an interval.	Added for R12 May-June 2023
Q	**PrimarySecondary_ Matl**	Expanded Material ID - 4 digits	Material identifier using standard material abbreviations for primary material and if present prevalent secondary materials. Simple materials ID that addresses bulk of entries from PGDP and nearly all entries from other sources.	Updated June-August 2023
R	**Graded_Coarse_Matl**	Materials ID with discretization of coarse materials	Compound primary and secondary material identification and grading for coarse materials intervals	Added June-August 2023
S	**Graded_Material**	Materials ID with discretization of all materials	Compound primary and secondary material identification and grading for all interval materials	Updated June-August 2023
T	**MaterialsUnits**	Materials units identified in initial litho stratigraphic review	Units identified by material type in early database development and initial review of logs	Updated August-September 2023
U	**Stratigraphy**	Generalized stratigraphy for each Interval recorded in log database	Stratigraphic units from Site and published literature. Abbreviations taken from literature (Ql, Qal, TKcm, etc). Subunits assigned to Continental Deposits to discretize coarse material sequences related to aquifer (LCD) from overlying younger & finer sequences (UCD).	Addition of Tcw (Eocene Sands & Terrace gravel) locations on PCC Terrace in areas adjacent to PGDP. In particular Tcw intervals on lower PCC Terrace to east of industrial site & south of Northeast Plume ~ potential overlap of coarse materials from @ 310' to 330' amsl.
V	**HGU**	PGDP Hydrogeologic Unit (HGU) for each Interval recorded in log database	Site HydroGeologic Units from site investigations.	Continued further discretization of HU2B to identify local spatial extent of Sd and Gr horizons encountered @ and below 345' amsl.
W	**LITHO_DESC_All**	Interval description from lithologic log	Electronically imported, OCR'ed or transcribed lithologic descriptions from available lithologic logs or entry of data from points identified on GQ's (surface exposures and sub-surface contacts) and other available maps.	C-400 RIFS borings added October 2022. Plotted and provided to GWM October 2022. Edited January - June 2023
X	**Completed_ Stratigraphy**	Stratigraphy in which boring is completed	Database function to ID stratigraphy at elevation of boring completion	Updated June - September 2023
Y	**Completed_HGU**	HGU in which boring is completed	Database function to ID hydrogeologic unit at elevation of boring completion	Updated June - September 2023
Z	**NOTES_1**	Questions/observations about intervals; Notes related to plotting	Notes from R9 dbase work. ID points in question, use of data record, etc. Also ID data entry that should be conducted.	Updated September 2023. Needs omit column added for each surface plot
AA	**NOTES_2**	Notes related to data in the database	Gathered as final plots and evaluations proceeded for R8 and R9 of database	Updated September 2023. Needs omit column added for each surface plot
AB	**ALIAS**	Notes known alias of record name	Recorded as encountered	Needs ongoing review
AC	**ALIAS2**	Notes known alias of record name	Recorded as encountered	Needs ongoing review
AD	**AKGWA_Scan_Link**	Link to AKGWA # records page	Compiled	Data last update November, 2019

R12 Column ID, Explanation, Status (cont'd)

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AE	**PEGASIS_SCAN_LINK**	Link to PEGASIS log file	Compiled	Data last update June, 2020
AF	**KRCEE_SCAN_LINK**	Link to KRCEE log file	Compiled	Data last update September, 2019
AG	**Data Source**	Identification of source data	Data from PEGASIS	September 2021
AH	**Data Location Type**	Location type	Data from PEGASIS	September 2021
AI	**Drill_Method**	Drilling Method	From lithologic logs, tables	Partially completed September 2023. Balance of location method would be helpful evaluating interval data
AJ	**ANGULAR**	Angular Boring ID	New Monitoring Well Survey Data from PGDP/FRNP	Completed August 2023
AK	**4R_Survey_GS_ELEV_Grade**	Survey Elevation Data	New Monitoring Well Survey Data from PGDP/FRNP	Completed August 2023
AL	**Survey_Date**	4R Survey Date	New Monitoring Well Survey Data from PGDP/FRNP	Completed August 2023