

Casmalia Project Database

The Casmalia database design is based on the requirements presented in the RI work plan meshed with the needs of the database output for RI/FS and risk assessment analysis and reporting. Tables and fields are populated as data are received and validated. Some tables and fields may be left empty until those data are needed in the database.

The data structure is meant to be dynamic and flexible so fields may be added or deleted as the project progresses.

LOCATION TABLE

FIELD NAME	DESCRIPTION
Location	Name of sampling location.
Study Area	Study Area sample was collected in.
Point type	Type of location (eg, cpt, boring, monitoring well, piezometer)
X Coordinate	Easting coordinate in NAD27 Zone V feet
Y Coordinate	Northing coordinate in NAD27 Zone V feet
Z Coordinate	Ground Surface Elevation in feet above mean sea level
Measuring Point	Elevation of Measuring Point (Top of casing) in feet above mean sea level. Required for wells and piezometers
Top of Screen	Depth to Top of screen interval in feet. Required for wells and piezometers
Bottom of Screen	Depth to Bottom of screen interval in feet. Required for wells and piezometers
Screen_type	Material type of screen (e.g., PVC, Stainless Steel)
HSU	Hydrostratigraphic Unit
Date of Survey	Date Survey was completed
Surveyor	Name of Survey company or type of survey instrument (eg, GPS, DPGS, HUD)
Comments	Comments regarding sampling location

CHEMISTRY TABLES

FIELD NAME	DESCRIPTION
Location	Name of sampling location.
Sample_id	Name of sample per Chain of Custody
Matrix	Sample Matrix (e.g., Soil, NAPL, sed, GW, SW)
Sample Type	Type of sample (e.g. Primary, Duplicate)

FIELD NAME	DESCRIPTION
Start_Depth	Start of sample interval (feet below ground surface) or Top of screen
End_Depth	End of sample interval (feet below ground surface) or Bottom of screen
Depth	Target Sample depth. Required for soil/sediment samples
Date Sampled	Date sample was collected.
Time Sampled	Required for water samples
Sample Event	Event for which sample was taken. (eg, RI phase 1, quarterly monitoring)
Dup	This field is used to distinguish between the results obtained from duplicate samples (i.e., samples taken from the same well, on the same day, at the same time using same laboratory method for same parameter). See note. Blank if primary sample.
Primary_dup	Primary sample to which the duplicate is tied. Blank if primary sample
CAS_RN	Chemical Abstract Registry Number
Parameter	Name of the chemical compound (parameter) analyzed for in the laboratory.
Result Text	Results as reported from the laboratory saved as text. This text field is for reporting purposes and cannot be used for calculation purposes. Non-detects are indicated by a less than symbol "<" followed by the sample specific detection limit for the analysis.
xmod	Used to modify results tables to show them as non-detects
Result	Analytical results saved as numeric values. This field is used for calculation purposes. Non-detect values are indicated as zeros. Data flagged as UJ will be populated with their estimated values. R flagged data will reported with null.
Result Detections Only	Analytical results of detections saved as numeric values. UJ and R flagged data will be reported with null.
Results_with_MDL	At EPAs request this field contains results along with non-detect values set to MDL
Results_with_half_MDL	At EPAs request this field contains results along with non-detect values set to one half the MDL
Qualifier	Combines lab and Expert Review Qualifiers
Lab Qualifier	Lab provided data qualifier
Lab_Reason	Reason for lab qualifier assignment
RMOD	Validator's data qualifier, which indicates whether or not the value is a qualified result. A "U" in this column indicates that the result is a non-detect. A "J" in this column indicates the result is an estimated concentration. If the field is blank, the result is a non-qualified detect.
Review_qual_reason	Reason code for Expert Review Qualifier

FIELD NAME	DESCRIPTION
Validation_Level	EPA requested field showing level of validation of each result.
PQL	Practical quantitation limit for each chemical compound, as determined by the laboratory in accordance with the definition in Appendix A.
Det lim or MDL	Method detection limit for each chemical compound, as determined by the laboratory in accordance with the definition in Appendix A
Units	Unit of the result, detection limit, and practical quantitation limit.
Laboratory Method	Laboratory method used to analyze the parameter concentration.
Parameter Class	Parameter class (eg, VOC, SVOC)
LabID	Name of the laboratory performing chemical analysis of sample.
Log No.	Laboratory-specified sample identification number
BatchID	ID used by laboratory to tie primary results to QA/QC batch, may also be SDG ID
SDGID	Sample Delivery group ID
Source	Name of the individual or organization responsible for collecting the sample.
Notes	Notes pertaining to sample result. Includes lab reported result in the case of validation changing result.
TIC	Logic Field – True if chemical is a Tentatively Identified Compound (TIC), False if chemical is a Target Analyte
Percent_Match	Percent Match for TICs as reported from the lab (Q value)
Retention_Time	Retention Time for TICs as reported from the lab
TIC_CAS	Best Match CAS numbers for TICs
Data Validator	Data Validator
T_D	Total or Dissolved Sample Fraction

Note: For duplicates, designate each duplicate starting with zero "0" (e.g., 0, 1, 2, 3, 4 for five duplicate samples).

WATER LEVEL TABLE

FIELD NAME	DESCRIPTION
Location	Name of sampling location.
Date	Date of water level reading
Time	Time of water level reading
Depth to Water	Depth to water as measured in the field
Water Level Elevation	Water Level elevation in feet above mean sea level
Depth to NAPL	Depth to non-aqueous phase liquid

FIELD NAME	DESCRIPTION
Bottom of NAPL	Depth to bottom of non-aqueous phase liquid
Equilibrated	Is this an equilibrated reading? Y/N
Comments	Comments regarding water level reading

GEOLOGY TABLE

FIELD NAME	DESCRIPTION
Location	Name of sampling location.
Study_Area	Study Area sample was collected in.
Start_Depth	Depth to bottom of sampling point
End_Depth	Depth to top of sampling point
Stratum	Soil type (i.e. clayston, alluvium, sediment, fill)
Claytype	Type of clay (i.e. weathered or unweathered)
Comments	Comments regarding observation

THRESHOLD CRITERIA TABLE

FIELD NAME	DESCRIPTION
Criteria	Background, PRG, MCL, etc
Parameter	Name of the chemical compound (parameter) analyzed for in the laboratory.
CAS_RN	Chemical Abstract Registry Number
Result	This field contains the analytical results saved as numeric values. This field is used for calculation purposes. Non-detect values are indicated as zeros.
Units	Units of criteria
Study Area	Study Area sample was collected in.
Matrix	Sample Matrix (eg, Soil, NAPL, sed, GW, SW)
Date	Date background level defined
Comments	Comments regarding background level

TIC_CAS TABLE

FIELD NAME	DESCRIPTION
Parameter	Name of the chemical compound (parameter) analyzed for in the laboratory.
CAS_RN	Chemical Abstract Registry Number
TIC_CAS	Best Match CAS numbers for TICs

Groundwater_sample_id_cross_reference TABLE as requested by EPA, June 2006.

FIELD NAME	DESCRIPTION
CrossOverSampleID	Field Sample ID Recorded by EPA.
Location	Name of sampling location.
Sample_id	Database tracking sample ID.
Date Sampled	Date sample was collected.
Sample Type	Type of sample (e.g. Primary, Duplicate)

Note: All soil and sediment samples reported as dry weights.

Reference Information - Structure minimum requirements as presented in the RI Work Plan

FIELD NAME	DESCRIPTION
Location	Name of sampling location.
Study Area	Study Area sample was collected in.
Survey Coordinates	X, Y and Z Coordinates.
Depth	Sample depth below ground surface
Date Sampled	Date sample was collected.
Dup	This field is used to distinguish between the results obtained from duplicate samples (i.e., samples taken from the same well, on the same day, at the same time using same laboratory method for same parameter). See note.
Parameter	This field contains the name of the chemical compound (parameter) analyzed for in the laboratory.
Result Text	This field contains the results as reported from the laboratory saved as text. This text field is for reporting purposes and cannot be used for calculation purposes. Non-detects are indicated by a less than symbol "<" followed by the reporting limit for the analysis.
Result	This field contains the analytical results saved as numeric values. This field is used for calculation purposes. Non-detect values are indicated as zeros.
Result – Detections Only	This field contains the analytical results of detections saved as numeric values.

FIELD NAME	DESCRIPTION
RMOD	This field consists of a data qualifier, which indicates whether or not the value is a detection. A "U" in this column indicates that the result is a non-detect. A "J" in this column indicates the result is a trace concentration. If the field is blank, the result is a detect.
PQL	This field presents the practical quantitation limit for each chemical compound, as determined by the laboratory in accordance with the definition in Appendix A.
Det Lim or MDL	This field presents the method detection limit for each chemical compound, as determined by the laboratory in accordance with the definition in Appendix A
Units	This field contains the unit of the result, detection limit, and practical quantitation limit.
Laboratory Method	This field contains the laboratory method used to analyze the parameter concentration.
LabID	Name of the laboratory performing chemical analysis of sample.
Log No.	Laboratory-specified sample identification number
Source	Name of the individual or organization responsible for collecting the sample.