

TABLE A1-17
 Summary of Reason Codes
Omega Chemical Superfund Site

Basis	Reason Code	Reason Code Definition	Description
Flags Applied Based on Analyte Contamination	A1	LCS Recovery	The recovery from the laboratory control sample did not meet acceptance criteria. High recoveries result in qualification of positive results with a high bias; recoveries below the lower recoveries result in qualification of positive results with a high bias; recoveries below the lower control limit result in qualification of quantitation limit.
	A2	MS/MSD Recovery	The recovery from the matrix spike and/or matrix spike duplicate did not meet acceptance criteria. High recoveries result in qualification of positive results with a high bias; recoveries below the lower control limit result in qualification of both positive results and quantitation limits.
	A3	Surrogate Recovery	The surrogate recovery did not meet the acceptance criteria; the results and quantitation limits for associated analytes are qualified as estimated, with a low bias. High surrogate recoveries result in qualification of positive results with a high bias.
	B1	Laboratory Blank Contamination	The analyte was detected in the sample at a concentration less than 5 times (10 times for common laboratory contaminants) the amount found in the associated laboratory blank. The results are raised to the reporting limit or qualified as not detected at the amount reported (if above the reporting limit)
	B2	Equipment Blank Contamination	The analyte was detected in the sample at a concentration less than 5 times (10 times for common laboratory contaminants) the amount found in the associated equipment blank. The results are raised to the reporting limit or qualified as not detected at the amount reported (if above the reporting limit)

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Qualifications Affecting Accuracy	B3	Field Blank Contamination	The analyte was detected in the sample at a concentration less than 5 times (10 times for common laboratory contaminants) the amount found in the associated field blank. The results are raised to the reporting limit or qualified as not detected at the amount reported (if above the reporting limit)
	B4	Trip Blank Contamination	The analyte was detected in the sample at a concentration less than 5 times (10 times for common laboratory contaminants) the amount found in the associated trip blank. The results are raised to the reporting limit or qualified as not detected at the amount reported (if above the reporting limit)
	B5	Initial Calibration Blank Contamination	The analyte was detected in the initial calibration blank. For associated samples, detected results less than the reporting limit are qualified as not detected at the reporting limit.
	B6	Continuing Calibration Blank Contamination	The analyte was detected in the continuing calibration blank. For associated samples, detected sample results less than the reporting limit are qualified as not detected at the reporting limit.
	B7	Source Blank Contamination	The analyte was detected in the source water used to prepare equipment and field blanks. The information is used to evaluate the suitability of the water as a final decontamination rinse.
	B8	Storage Blank Contamination	The analyte was detected in the sample at a concentration less than 5 times (10 times for common laboratory contaminants) the amount found in the storage blank, used in the laboratory to evaluate potential cross contamination. The results are raised to the reporting limit or qualified as not detected at the amount reported (if above the reporting limit)
	C1	Initial Calibration Relative Standard Deviation	ICAL%RSD The percent relative standard deviation for the initial calibration response factor did not meet the linearity acceptance criterion and quantitation may be more imprecise and inaccurate than expected.

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	C2	Initial Calibration Response Factor	The average response factor from the initial calibration did not meet the acceptance criterion and analytical sensitivity may be less than expected.
	C3	Calibration Percent Difference	The percent difference between the response factor in the continuing calibration standard and the average response factor from the initial calibration standard exceeded the acceptance criteria. Analytical precision may be larger than expected.
	C4	Continuing Calibration Percent Recovery	The recovery of the analyte in the continuing calibration verification standard did not meet the method acceptance criteria. Positive results are qualified as estimated if the standard recovery is high; both positive results and quantitation limits are qualified as estimated if the standard recovery is low.
	C5	Continuing Calibration Response Factor	The response factor in the continuing calibration did not meet the acceptance criterion and analytical sensitivity may be less than expected.
	C6	Initial Calibration Verification	An initial calibration verification standard is analyzed to test the accuracy of the initial calibration using a second source standard. When analyte recoveries do not meet the acceptance criteria, the initial calibration may be inaccurate.
	Carryover Contamination	Carryover Contamination	The result is qualified as estimated because the previous sample in the run had a high concentration of the target analyte; there is the potential for a high bias in the qualified result.
	D2	MS/MSD Duplicate Relative Percent Difference	The precision between matrix spike and matrix spike duplicate samples did not meet acceptance criteria, and higher than expected variability may be present.
	D3	Sample Duplicate Relative Percent Difference	The precision between laboratory duplicates did not meet acceptance criteria, and higher than expected variability may be present.

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Qualifications Affecting both Accuracy and Precision	D4	Field Duplicate Relative Percent Difference	The precision between field duplicate samples did not meet acceptance criteria, and higher than expected variability may be present. (no qualification is applied based on field duplicates only)
	Q1	Result Over Calibration Range	Reported result exceeded the concentration of the highest concentration standard. The result is qualified as estimated and is considered to represent the minimum sample concentration. The true concentration may be higher than reported.
	Q2	Failed Spectral Match	The GC/MS spectral match criteria were not met. As a result, the analyte is reported as not
	Q4	Holding Time Exceeded	The holding time was exceeded. Positive results and quantitation limits are qualified as estimated; positive results may be biased low due to analyte losses during storage.
	Q6	Quantitation Limit Standard Recovery	The quantitation limit standard did not meet the control limit (EPA Region 9 Laboratory specific QC). The ability of the analytical system to meet the quantitation may be impaired.
	Q7	Serial Dilution Recovery	The agreement between diluted and undiluted analyses did not meet acceptance criteria and a matrix effect may be present.
	Q8	Interference	Interferences from other analytes may affect quantitation. Reporting limit may be raised.
	Tr	Result Below Reporting Limit	The result is above the MDL but below the quantitation limit; there is some associated uncertainty in results as the limit of detection is approached.