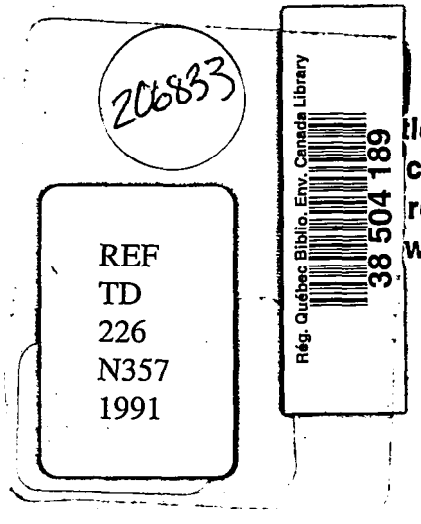
NAQUADAT / ENVIRODAT

Dictionary of Codes
Dictionnaire des codes

1991



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wa, K1A 0H3

Data Systems Section
Water Quality Branch
Envi a d
Ottaw , 1 0H3

VARIABLES AND VARIABLE CODES

ENVIRODAT/NAQUADAT VARIABLES AND VARIABLE CODES

ARIABLE GROUP	VARIABLE CODE	VARIABLE NAME	OTHER NAME
ACIDIC HERBICIDES	50-31-7	2,3,6-TBA	
	93-76-5	2,4,5-T	
	1928-37-6	2,4,5-T METHYL ESTER	
	94-75-7	2,4-D	
	1928-38-7	2,4-D METHYL ESTER	
	94-82-6	2,4-DB	
	18625-12-2	2,4-DB METHYL ESTER	
	65-85-0	BENZOIC ACID	
	22212-55-1	BENZOYLPROP-ETHYL	ENDAVEN
	1689-84-5	BROMOXYNIL	
	1861-31-1	DACTHAL	
	75-99-0	DALAPON	
	1918-00-9	DICAMBA	
	120-36-5	DICHLORPROP	2,4-DP
	57153-17-0	DICHLORPROP METHYL ESTER	
	51338-27-3	DICLOFOP METHYL	
	88-85-7	DINOSEB	
	93-72-1	FENOPROP	SILVEX
	40843-25-2	HOEGRASS	DICHLOFOP-METHYL
	94-74-6	MCPA	
	94-81-5	MCPB	
	1918-02-1	PICLORAM	TORDON
	76-03-9	TRICHLOROACETIC ACID	
ACIDS	FULVIC_ACID_DIS	FULVIC ACIDS DISSOLVED	
	FULVIC_ACID_TOT	FULVIC ACIDS TOTAL	
	57-10-3	HEXADECANOIC ACID	
	HUMIC_ACID	HUMIC ACID	
	HUMIC_ACID_DIS	HUMIC ACIDS DISSOLVED	
	HUMIC_ACID_TOT	HUMIC ACIDS TOTAL	
	NTA	NITRILOTRIACETIC ACID	
	ORG-ACIDS	ORGANIC ACIDS	
ADDITIVES	FLUORESCEIN_DYE	FLUORESCEIN DYE	
ALICYCLICS	79-92-5	CAMPHENE	
	CYCLODIENS	CYCLODIENES	
	77-47-4	HEXACHLOROCYCLOPENTADIENE	
	78-59-1	ISOPHORONE	
ALIPHATIC HYDROCARBONS	N_ALKANES	N-ALKANES C10 - C26	
ANIONS AND CATIONS	BR_DIS	BROMIDE DISSOLVED	
	HALIDES_TOT	HALIDES TOTAL	
AROMATIC HYDROCARBONS	119-64-2	1,2,3,4-TETRAHYDRONAPHTHALENE	
	90-12-0	1-METHYLNAPHTHALENE	METHYLNAPHTHALENE
	91-57-6	2-METHYLNAPHTHALENE	
	83-32-9	ACENAPHTHENE	NAPHTHYLENEETHYLENE
	208-96-8	ACENAPHTHYLENE	
	120-12-7	ANTHRACENE	
	AH	AROMATIC HYDROCARBONS	
	56-55-3	BENZ(A)ANTHRACENE	BENZO(A)ANTHRACENE
	71-43-2	BENZENE	
	50-32-8	BENZO(A)PYRENE	
	214-17-5	BENZO(B)CHRYSENE	
	205-99-2	BENZO(B)FLUORANTHENE	
	192-97-2	BENZO(E)PYRENE	
	191-24-2	BENZO(G,H,I)PERYLENE	
	205-82-3	BENZO(J)FLUORANTHENE	
	207-08-9	BENZO(K)FLUORANTHENE	
	218-01-9	CHRYSENE	
	53-70-3	DIBENZ(A,H)ANTHRACENE	DIBENZO(A,H)ANTHRACENE
	206-44-0	FLUORANTHENE	
	86-73-7	FLUORENE	
	95-13-6	INDENE	
	193-39-5	INDENO(1,2,3-C,D)PYRENE	
	91-20-3	NAPHTHALENE	
	198-55-0	PERYLENE	
	85-01-8	PHENANTHRENE	
	PAH	POLYAROMATIC HYDROCARBONS	PAH'S
	129-00-0	PYRENE	
	217-59-4	TRIPHENYLENE	
BIOTA	AEROBIC_HETEROTROPHS	AEROBIC HETEROTROPHS	
	ALGAL_COUNT_BACILLAR	ALGAL COUNT BACILLARIOPHYTA	
	ALGAL_COUNT_CHLOROPH	ALGAL COUNT CHLOROPHYTA	
	ALGAL_COUNT_CYANOPHY	ALGAL COUNT CYANOPHYTA	
	ALGAL_COUNT_TOT	ALGAL COUNT TOTAL	

ENVIRODAT/NAQUADAT VARIABLES AND VARIABLE CODES

VARIABLE GROUP	VARIABLE CODE	VARIABLE NAME	OTHER NAME
BIOTA	BKGR_COLONIES_TOT	BACKGROUND COLONIES TOTAL	
	BIOMASS_CLADOPHORA	BIOMASS CLADOPHORA	
	C_FIXAT_EPILITHON	CARBON FIXATION EPILITHON	
	C_FIXAT_PHYTOPLANK	CARBON FIXATION PHYTOPLANKTON	
	COLIFORMS_FECAL	COLIFORMS FECAL	
	COLIFORMS_TOT	COLIFORMS TOTAL	
	FECAL_STREP	FECAL STREPTOCOCCI	
	ALGAL_GROWTH_POT_FIL	FILTERED ALGAL GROWTH POTENTIAL	
	PHYTOPLANKTON_COUNT	PHYTOPLANKTON COUNT	
	PHYTOPLANKTON_SP_CNT	PHYTOPLANKTON SPECIES COUNT	
	PHYTOPLANKTON_VOL_BI	PHYTOPLANKTON VOLUME BIOMASS	
	PSEUDOMONAS_AERUGINO	PSEUDOMONAS AERUGINOSA	
	BACT_DENS_COUNT_20DC	STD. PLATE COUNT 20DEG.C BACT. DENS.	
	BACT_DENS_COUNT_35DC	STD. PLATE COUNT 35DEG.C BACT. DENS.	
	BACT_DENS_COUNT	STD. PLATE COUNT BACT. DENS.	
	ALGAL_GROWTH_POT_TOT	TOTAL ALGAL GROWTH POTENTIAL	
CALCULATED QUANTITIES	ACID_TOT_CACO3_CALC	ACIDITY TOTAL (CALCD.) CACO3	
	ALDI-100	ALDRIN + HEOD (DIELDRIN) (CALCD.)	
	NH3_UN_ION_CALC	AMMONIA UN-IONIZED (CALCD.)	
	HCO3_CALC	BICARBONATE (CALCD.)	
	HCO3_CALC_LAB	BICARBONATE LAB (CALCD.)	
	C/N	C/N RATIO	
	CA_DIS_CALC	CALCIUM DISSOLVED (CALCD.)	
	C_DIS_INOR_CALC	CARBON DISSOLVED INORGANIC (CALCD.)	
	C_DIS_ORG_CALC	CARBON DISSOLVED ORGANIC (CALCD.)	
	C_ORG_TOT_CALC	CARBON TOTAL ORGANIC (CALCD.)	
	CO3	CARBONATE (CALCD.)	
	57-74-9	CHLORDANE TOTAL ISOMERS (CALCD.)	
	CR_TOT_LOAD	CHROMIUM TOTAL (CALCD.) LOAD	
	CONDUCT_THEO	CONDUCTIVITY THEORETICAL	
	CONDUCT_THEO_CALC	CONDUCTIVITY THEORETICAL (CALCD.)	
	CONDUCT_THEO_ERR	CONDUCTIVITY THEORETICAL ERROR	
	CONDUCT_THEO_ERR_CAL	CONDUCTIVITY THEORETICAL ERROR (CALCD.)	
	CYCLODIENS_TOT	CYCLODIENES TOTAL (CALCD.)	
	50-29-3_TOT_CALC	DDT TOTAL (CALCD.)	
	CO2_FREE	FREE CO2 (CALCD.)	
	HARD_NON-CARB_CALC	HARDNESS NON-CARB. (CALCD.)	
	HARD_TOT_CACO3_CALC	HARDNESS TOTAL (CALCD.) CACO3	
	HARD_TOT_CACO3_CAL_L	HARDNESS TOTAL LAB (CALCD.) CACO3	
	1024-57-3_CALC	HEPTACHLOR EPOXIDE (CALCD.)	
	OH	HYDROXIDE (CALCD.)	
	ION_BAL	IONIC BALANCE	
	ION_BAL_CALC	IONIC BALANCE (CALCD.)	
	ION_BAL_DIFF_CALC	IONIC BALANCE DIFFERENCE (CALCD.)	
	ION_BAL_ERR	IONIC BALANCE ERROR	
	ION_BAL_ERR_CALC	IONIC BALANCE ERROR (CALCD.)	
	MG_DIS_CALC	MAGNESIUM DISSOLVED (CALCD.)	
	N_PART_CALC	NITROGEN PARTICULATE (CALCD.)	
	N_TOT_CALC	NITROGEN TOTAL (CALCD.)	
	N_ORG_TOT_CALC	NITROGEN TOTAL ORGANIC (CALCD.)	
	O_DIS_SAT_CALC	OXYGEN DISSOLVED % SATURATN. (CALCD.)	
	PEST-100	PESTICIDES TOTAL (CALCD.)	
	PH_THEO	PH THEORETICAL (CALCD.)	
	PH_THEO_ERR	PH THEORETICAL ERROR (CALCD.)	
	PHEN-100	PHENYL ACTIVES TOTAL (CALCD.)	
	P_PART_CALC	PHOSPHOROUS PARTICULATE (CALCD.)	
	PRECIP_RECOV	PRECIPITATION RECOVERY (CALCD.)	
	RES_VOL_NF_CALC	RESIDUE VOLATILE NONFILTRABLE (CALCD.)	
	RES_VOL_TOT_CALC	RESIDUE VOLATILE TOTAL (CALCD.)	
	SATUR_INDEX	SATURATION INDEX (CALCD.)	
	NA_ADSORP_RATIO	SODIUM ADSORPTION RATIO (CALCD.)	
	NA_%	SODIUM PERCENTAGE (CALCD.)	
	STAB_INDEX	STABILITY INDEX (CALCD.)	
	SUM_MAJ_IONS	SUM MAJOR IONS (CALCD.)	
	SUM_OF_AN	SUM OF ANIONS	
	SUM_OF_CAT	SUM OF CATIONS	
	TDS_CALC	TOTAL DISSOLVED SOLIDS (CALCD.)	
	TRIA-100	TRIAZINES TOTAL (CALCD.)	
CARBAMATE PESTICIDES	116-06-3	ALDICARB	
	2032-59-9	AMINOCARB	MATACIL
	759-94-4	CARBAMATE EPTC	ETHYLPROPYLTHIO CARBAMATE
	63-25-2	CARBARYL	
	1563-66-2	CARBOFURAN	
	16709-30-1	CARBOFURAN 3-KETO	
	2032-65-7	METHIOCARB	
	16752-77-5	METHOMYL	
	315-18-4	MEXACARBATE	

ENVIRODAT/NAQUADAT VARIABLES AND VARIABLE CODES

VARIABLE GROUP	VARIABLE CODE	VARIABLE NAME	OTHER NAME
CARBAMATE PESTICIDES	1079-33-0	MOBAM	
	23103-98-2	PIRIMICARB	
	114-26-1	PROPOXUR	
CARBON	C_DIS_INOR	CARBON DISSOLVED INORGANIC	
	C_DIS_INOR_TOT	CARBON DISSOLVED INORGANIC TOTAL	
	C_DIS_ORG	CARBON DISSOLVED ORGANIC	
	C_DIS_ORG_TOT	CARBON DISSOLVED ORGANIC TOTAL	
	C_DIS_TOT	CARBON DISSOLVED TOTAL	
	CS2	CARBON DISULFIDE	
	C_INOR	CARBON INORGANIC	
	C_ORG	CARBON ORGANIC	
	C_PART	CARBON PARTICULATE	
	C_PART_ORG	CARBON PARTICULATE ORGANIC	
	C_PART_TOT	CARBON PARTICULATE TOTAL	
	C_TOT	CARBON TOTAL	
	C_INOR_TOT	CARBON TOTAL INORGANIC	
	C_ORG_TOT	CARBON TOTAL ORGANIC	
	CO2_DIS	CO2 DISSOLVED	
	CN	CYANIDE	
	CN_TOT	CYANIDE TOTAL	
	HCHO_TOT	FORMALDEHYDE TOTAL	
	TANNIN_LIGNIN	TANNIN AND LIGNIN LIG. SULPH.	
CHLOROPHYLLS	CHLOROPHYLL_A	CHLOROPHYLL A	
	CHLOROPHYLL_A_ACTIVE	CHLOROPHYLL A ACTIVE	
	CHLOROPHYLL_A_EPILIT	CHLOROPHYLL A EPILITHON	
	CHLOROPHYLL_A_EXT	CHLOROPHYLL A EXTRBLE.	
	CHLOROPHYLL_A_PHYTO	CHLOROPHYLL A PHYTOPLANKTON	
	CHLOROPHYLL_A_TOT	CHLOROPHYLL A TOTAL	
	CHLOROPHYLL_B	CHLOROPHYLL B	
	CHLOROPHYLL_C	CHLOROPHYLL C	
	PHEOPHYTIN_EXTR	PHEOPHYTIN EXTRACTABLE	
DESCRIPTIVE	CLAY	% CLAY MINERALS	
	ALGAE_SITE	ALGAE PRESENCE AT SITE	
	ALGAE_SAMPLE	ALGAE PRESENCE IN SAMPLE	
	ALPHA_RAD_TOT	ALPHA RADIATION TOTAL	
	AMBIENT_CONDTN	AMBIENT CONDITIONS	
	DISCHARGE_YR_MEAN	ANNUAL MEAN DISCHARGE	
	SMPL_ARCHV	ARCHIVE SAMPLE	
	AVG_DEPTH	AVERAGE WATER DEPTH AT SAMPLING STATION	
	BAR_PRESS	BAROMETRIC PRESSURE	
	SED_TEXTR	BASIC SEDIMENT TEXTURE	
	BETA_RAD_TOT	BETA RADIATION TOTAL	
	BOTTOM_CONDTN	BOTTOM CONDITION	
	UNIT_BOTTOM	BOTTOM OF UNIT	
	CLOUD_COVER	CLOUD COVER	
	COLLECT_METH	COLLECTION METHOD	
	COLOR_SED	COLOUR (BASIC) OF SEDIMENT	
	COLOR_APP_ALPHA	COLOUR APPARENT ALPHA	
	COLOR_MODIF	COLOUR MODIFIER	
	COMP_SMPL	COMPOSITE SAMPLE	
	CONC_SUS_SED	CONCENTRATION SUSPENDED SEDIMENT	
	COND-SAMPLING	CONDITION OF SAMPLING	
	SED_CONSISTENCY	CONSISTENCY OF SEDIMENT	
	DEPTH_SMPL_BOTTOM	DEPTH OF SAMPLING FROM BOTTOM	
	DEPTH_SMPL_SURF	DEPTH OF SAMPLING FROM SURFACE	
	DISCHARGE_DAY_MEAN	DISCHARGE DAILY MEAN	
	DISCHARGE	DISCHARGE DAILY PER AREA	
	DISCHARGE_INSTANT	DISCHARGE INSTANT	
	DISCHARGE_MO_MEAN	DISCHARGE MONTHLY MEAN	
	DISCHARGE_MO_MEAN_PR	DISCHARGE MONTHLY MEAN PROVISION	
	DISCHARGE_TILE_DRAIN	DISCHARGE TILE DRAINAGE	
	DIST_REF_STN	DISTANCE FROM REF. STATION (DOWNSTREAM)	
	EMPTY_BAG_WEIGHT	EMPTY WEIGHT AT LABORATORY	
	FISH_AGE	FISH AGE	
	FISH_INORG_SMPLWT	FISH INORGANIC SAMPLE WEIGHT	
	FISH_LEN	FISH LENGTH	
	FISH_ORG_SMPLWT	FISH ORGANIC SAMPLE WEIGHT	
	FISH_%FAT	FISH PERCENTAGE FAT	
	FISH_WT	FISH WEIGHT	
	FLOAT_MATL_SITE	FLOATING MATERIAL AT SITE	
	FLOAT_MATL_SMPL	FLOATING MATERIAL IN SAMPLE	
	ICE_COVER	ICE COVER	
	ICE_THICK	ICE THICKNESS	
	KURTOSIS	KURTOSIS	
	LAKE_LAYER	LAKE LAYER	
	LAYER_BOTTOM	LAYER BOTTOM DEPTH	

ENVIRODAT/NAQUADAT VARIABLES AND VARIABLE CODES

VARIABLE GROUP	VARIABLE CODE	VARIABLE NAME	OTHER NAME
DESCRIPTIVE	LAYER_TOP	LAYER TOP DEPTH	
	MAX_DAY_DISCHARGE_YR	MAXIMUM DAILY DISCHARGE FOR YEAR	
	GRAIN_SIZE	MEAN GRAIN SIZE	
	MIN_DAY_DISCHARGE_YR	MINIMUM DAILY DISCHARGE FOR YEAR	
	MOISTURE	MOISTURE SEDIMENT	
	SOLAR_RAD	NET SOLAR RADIATION (RF4)	
	ODOUR_SITE	ODOUR APPARENT AT SITE	
	ODOUR_SMPL	ODOUR APPARENT IN SAMPLE	
	SED_ODOUR	ODOUR OF SEDIMENT	
	ODOUR_THRES	ODOUR THRESHOLD NUMBER	
	PEBBLE_TYPE	PEBBLE TYPE	
	PRECIP	PRECIPITATION	
	PRECIP_CATCH	PRECIPITATION CATCH	
	PRECIP_SAMPLER_TYPE	PRECIPITATION SAMPLER TYPE	
	PRECIP_TYPE	PRECIPITATION TYPE	
	QUARTZ	QUARTZ	
	RAIN_END_DATE	RAIN END DATE	
	RAIN_END_TIME	RAIN END TIME	
	RAIN_START_DATE	RAIN START DATE	
	RAIN_RECENT	RAINFALL RECENT	
	REF_NUMB	REFERENCE NUMBER	
	SMPL_CONTAINER	SAMPLE CONTAINER	
	SMPL_PHOTO	SAMPLE PHOTO	
	SMPL_RECEIVED	SAMPLE RECEIVED AT LABORATORY	
	SMPL_TEMP	SAMPLE TEMPERATURE AT LABORATORY	
	SMPL_VOL	SAMPLE VOLUME	
	SMPL_WEIGHT	SAMPLE WEIGHT AT LABORATORY	
	SAMPLER	SAMPLER AREA	
	SAMPLER_HEIGHT	SAMPLER HEIGHT	
	DEPTH_SMPL_%TOT	SAMPLING DEPTH PERCENT OF TOTAL DEPTH	
	DIST_LEFT_BANK	SAMPLING DISTANCE FROM LEFT BANK	
	DIST_RIGHT_BANK	SAMPLING DISTANCE FROM RIGHT BANK	
	SMPL_DURAT	SAMPLING DURATION	
	SMPL_DURAT_SEQ	SAMPLING DURATION SEQUENTIAL	
	SAMPL_METH_DESC	SAMPLING METHOD DESCRIPTIVE	
	SMPL_PERIOD_COMP	SAMPLING PERIOD COMPOSITE	
	DEPTH_SED_SMPL	SEDIMENT SAMPLE DEPTH	
	SED_SMPLR	SEDIMENT SAMPLER	
	SED_SMPL_METH	SEDIMENT SAMPLING METHOD	
	SED_SIZE_CLAY	SEDIMENT SIZE CLAY	
	SED_SIZE_GRAVEL	SEDIMENT SIZE GRAVEL	
	SED_SIZE_SAND	SEDIMENT SIZE SAND	
	SED_SIZE_SILT	SEDIMENT SIZE SILT	
	SED_SUBSTR	SEDIMENT SUBSTRATE	
	SED_STRUC	SEDIMENTARY STRUCTURE	
	SKEWNESS	SKEWNESS	
	SNOW_COVER	SNOW COVER	
	SNOW_DENS	SNOW DENSITY	
	SNOW_DEPTH	SNOW DEPTH	
	SNOW_LAYER_BOTTOM	SNOW LAYER BOTTOM	
	SNOW_LAYER_TOP	SNOW LAYER TOP	
	SNOW_TYPE	SNOW TYPE	
	SORTING	SORTING	
	SUBSMPL_BOTTOM	SUBSAMPLE ANALYSED BOTTOM	
	SUBSMPL_TOP	SUBSAMPLE ANALYSED TOP	
	TEMP_AIR	TEMPERATURE AIR	
	TEMP_SNOW	TEMPERATURE SNOW	
	TEXTR_MODFR	TEXTURAL MODIFIER	
	SED_SMPLR_THICKNESS	THICKNESS OF SEDIMENT SAMPLER	
	UNIT_TOP	TOP OF UNIT	
	TURBID_SITE	TURBIDITY (VISUAL) AT SITE	
	TURBID_SMPL	TURBIDITY (VISUAL) IN SAMPLE	
	SMPL_SED_UNITNO	UNIT NUMBER OF SEDIMENT SAMPLE OR CORE	
	H2O_CONSUMP	WATER CONSMPTN. DAILY	
	DEPTH	WATER DEPTH	
	WATER_TAB_DEPTH	WATER TABLE DEPTH	
	WATERSHED	WATERSHED AREA	
	WEED_LOCTN	WEED LOCATION	
	WEED_SITE	WEEDS PRESENCE AT SITE	
	WIND_VEL	WIND VELOCITY	
	WSC_STATN	WSC REFERENCE STATION	
DIOXINS	1746-01-6	2,3,7,8-TCDD	
	3268-87-9	OCTA_CDD	OCTA-CHLORO-DIBENZO-DIOXIN
	37871-00-4	TOTAL_HEPTA_CDD	HEPTA-CHLORO-DIBENZO-DIOXINS
	34465-46-8	TOTAL_HEXA_CDD	HEXA-CHLORO-DIBENZO-DIOXINS
	36088-22-9	TOTAL_PENTA_CDD	PENTA-CHLORO-DIBENZO-DIOXINS
	41903-57-5	TOTAL_TETRA_CDD	TETRA-CHLORO-DIBENZO-DIOXINS

ENVIRODAT/NAQUADAT VARIABLES AND VARIABLE CODES

VARIABLE GROUP	VARIABLE CODE	VARIABLE NAME	OTHER NAME
DISSOLVED METALS	AL_DIS	ALUMINUM DISSOLVED	
	SB_DIS	ANTIMONY DISSOLVED	
	AS_DIS	ARSENIC DISSOLVED	
	BA_DIS	BARIUM DISSOLVED	
	BE_DIS	BERYLLIUM DISSOLVED	
	B_DIS	BORON DISSOLVED	
	CD_DIS	CADMIUM DISSOLVED	
	CR_DIS	CHROMIUM DISSOLVED	
	CR_+6	CHROMIUM HEXAVALENT	
	CR_+6_DIS	CHROMIUM HEXAVALENT DISSOLVED	
	CO_DIS	COBALT DISSOLVED	
	CU_DIS	COPPER DISSOLVED	
	FE_DIS	IRON DISSOLVED	
	PB_DIS	LEAD DISSOLVED	
	LI_DIS	LITHIUM DISSOLVED	
	MN_DIS	MANGANESE DISSOLVED	
	HG_DIS	MERCURY DISSOLVED	
	MO_DIS	MOLYBDENUM DISSOLVED	
	NI_DIS	NICKEL DISSOLVED	
	SE_DIS	SELENIUM DISSOLVED	
	AG_DIS	SILVER DISSOLVED	
	SR_DIS	STRONTIUM DISSOLVED	
	TL_DIS	THALLIUM DISSOLVED	
	SN_DIS	TIN DISSOLVED	
	TI_DIS	TITANIUM DISSOLVED	
	V_DIS	VANADIUM DISSOLVED	
	ZN_DIS	ZINC DISSOLVED	
ESTERS	137-89-3	BIS(2-ETHYLHEXYL) ISOPHTHALATE	
	117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	DI-ETHYLHEXYL PHTHALATE
	THALEST-100	BIS(4-METHYL-2-PENTYL) PHTHALATE	
	THALEST-200	BIS(ETHOXYHEXYL) PHTHALATE	
	117-82-8	BIS(METHOXYETHYL) PHTHALATE	
	85-68-7	BUTYLBENZYL PHTHALATE	
	84-69-5	DI-ISOBUTYL PHTHALATE	
	84-74-2	DI-N-BUTYL PHTHALATE	DIBUTYL PHTHALATE
	117-84-0	DI-N-OCTYL PHTHALATE	DIOCTYL PHTHALATE
	84-61-7	DICYCLOHEXYL PHTHALATE	
	84-66-2	DIETHYL PHTHALATE	
	1459-93-4	DIMETHYL ISOPHTHALATE	
	131-11-3	DIMETHYL PHTHALATE	
	84-76-4	DINONYL PHTHALATE	
	131-18-0	DIPENTYL PHTHALATE	
	84-62-8	DIPHENYL PHTHALATE	
ETHERS	101-55-3	4-BROMOPHENYL PHENYL ETHER	
	7005-72-3	4-CHLOROPHENYL PHENYL ETHER	
	111-91-1	BIS(2-CHLOROETHOXY) ETHER	
	111-44-4	BIS(2-CHLOROETHYL) ETHER	
	108-60-11	BIS(2-CHLOROISOPROPYL) ETHER	
EXTRACTABLE METALS	AL_EXTR	ALUMINUM EXTRACTABLE	
	SB_EXTR	ANTIMONY EXTRACTABLE	
	AS_EXTR	ARSENIC EXTRACTABLE	
	BA_EXTR	BARIUM EXTRACTABLE	
	BE_EXTR	BERYLLIUM EXTRACTABLE	
	B_EXTR	BORON EXTRACTABLE	
	CD_EXTR	CADMIUM EXTRACTABLE	
	CR_EXTR	CHROMIUM EXTRACTABLE	
	CO_EXTR	COBALT EXTRACTABLE	
	CU_EXTR	COPPER EXTRACTABLE	
	FE_EXTR	IRON EXTRACTABLE	
	PB_EXTR	LEAD EXTRACTABLE	
	LI_EXTR	LITHIUM EXTRACTABLE	
	MN_EXTR	MANGANESE EXTRACTABLE	
	HG_EXTR	MERCURY EXTRACTABLE	
	MNO_EXTR	MNO EXTRACTABLE	
	MO_EXTR	MOLYBDENUM EXTRACTABLE	
	NI_EXTR	NICKEL EXTRACTABLE	
	K_EXTR	POTASSIUM EXTRACTABLE	
	SE_EXTR	SELENIUM EXTRACTABLE	
	AG_EXTR	SILVER EXTRACTABLE	
	NA_EXTR	SODIUM EXTRACTABLE	
	SR_EXTR	STRONTIUM EXTRACTABLE	
	TL_EXTR	THALLIUM EXTRACTABLE	
	SN_EXTR	TIN EXTRACTABLE	
	TI_EXTR	TITANIUM EXTRACTABLE	
	W_EXTR	TUNGSTEN EXTRACTABLE	
	V_EXTR	VANADIUM EXTRACTABLE	

ENVIRODAT/NAQUADAT VARIABLES AND VARIABLE CODES

VARIABLE GROUP	VARIABLE CODE	VARIABLE NAME	OTHER NAME
EXTRACTABLE METALS	ZN_EXTR	ZINC EXTRACTABLE	
FUNGICIDES	133-06-2	CAPTAN	
	99-30-9	DICLORAN	
FURANS	51207-31-9	2,3,7,8_TCDF	2,3,7,8-TETRA-CHLORO-DIBENZO-DIOXI
	132-64-9	DIBENZOFURAN	DIBENZFURAN; DIPHENYLENE OXIDE
	39001-02-0	OCTA_CDF	
	38998-75-3	TOTAL_HEPTA_CDF	HEPTA-CHLORO-DIBENZO-FURANS
	55684-94-1	TOTAL_HEXA_CDF	HEXA-CHLORO-DIBENZO-FURANS
	30402-15-4	TOTAL_PENTA_CDF	PENTA-CHLORO-DIBENZO-FURANS
	55722-27-5	TOTAL_TETRA_CDF	TETRA-CHLORO-DIBENZO-FURANS
HALOGENATED ALIPHATICS	354-58-5	1,1,1-TRICHLORO-2,2,2-TRIFLUOROETHANE	
	71-55-6	1,1,1-TRICHLOROETHANE	
	79-34-5	1,1,2,2-TETRACHLOROETHANE	
	10436-39-2	1,1,2,3_TETRACHLOROPROPENE	
	76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUORO-ETHANE	FREON 113
	79-00-5	1,1,2-TRICHLOROETHANE	
	75-34-3	1,1-DICHLOROETHANE	
	75-35-4	1,1-DICHLOROETHYLENE	
	106-93-4	1,2-DIBROMOETHANE	
	107-06-2	1,2-DICHLOROETHANE	
	78-87-5	1,2-DICHLOROPROPANE	
	107-04-0	1-BROMO-2-CHLOROETHANE	
	78-88-6	2,3-DICHLOROPROPENE	
	110-75-8	2-CHLOROETHYLVINYLETHER	2-CHLOROETHOXYETHENE
	107-05-1	3-CHLOROPROPENE	
	74-97-5	BROMOCHLOROMETHANE	
	75-25-2	BROMOFORM	
	74-83-9	BROMOMETHANE	
	56-23-5	CARBON TETRACHLORIDE	
	75-00-3	CHLOROETHANE	
	67-66-3	CHLOROFORM	TRICHLOROFORM, TRICHLOROMETHANE
	74-87-3	CHLOROMETHANE	METHYLCHLORIDE
	156-59-2	CIS-1,2-DICHLOROETHENE	CIS-1,2-DICHLOROETHYLENE
	10061-01-5	CIS-1,3-DICHLOROPROPENE	CIS-1,3-DICHLOROPROPYLENE
	124-48-1	DIBROMOCHLOROMETHANE	
	74-95-3	DIBROMOMETHANE	
	75-27-4	DICHLOROBROMOMETHANE	
	75-43-4	DICHLOROFLUOROMETHANE	FREON 21
	87-68-3	HEXACHLOROBUTADIENE	
	67-72-1	HEXACHLOROETHANE	
	75-09-2	METHYLENE CHLORIDE	
	76-01-7	PENTACHLOROETHANE	
	127-18-4	TETRACHLOROETHYLENE	TETRACHLOROETHENE
	156-60-5	TRANS-1,2-DICHLOROETHENE	TRANS-1,2-DICHLOROETHYLENE
	10061-02-6	TRANS-1,3-DICHLOROPROPENE	TRANS-1,3-DICHLOROPROPYLENE
	79-01-6	TRICHLOROETHYLENE	
	75-69-4	TRICHLOROFLUOROMETHANE	
	TRIHALOMETHANES	TRIHALOMETHANES	
	75-01-4	VINYL CHLORIDE	
HALOGENATED MONOAROMATICS	634-66-2	1,2,3,4-TETRACHLOROBENZENE	
	634-90-2	1,2,3,5-TETRACHLOROBENZENE	
	87-61-6	1,2,3-TRICHLOROBENZENE	
	636-28-2	1,2,4,5-TETRABROMOBENZENE	
	95-94-3	1,2,4,5-TETRACHLOROBENZENE	
	120-82-1	1,2,4-TRICHLOROBENZENE	
	95-50-1	1,2-DICHLOROBENZENE	ORTHO-DICHLOROBENZENE
	626-39-1	1,3,5-TRIBROMOBENZENE	
	108-70-3	1,3,5-TRICHLOROBENZENE	
	108-36-1	1,3-DIBROMOBENZENE	
	541-73-1	1,3-DICHLOROBENZENE	META-DICHLOROBENZENE
	106-46-7	1,4-DICHLOROBENZENE	PARA-DICHLOROBENZENE
	108-86-1	BROMOBENZENE	
	108-90-7	CHLOROBENZENE	
	29082-74-4	OCTACHLOROSTYRENE	
	608-93-5	PENTACHLOROBENZENE	
HALOGENATED ORGANICS	ORCL-100	ORGANOCHLORINE COMPOUNDS TOTAL	
HALOGENATED POLYAROMATICS	90-13-1	1-CHLORONAPHTHALENE	
	91-58-7	2-CHLORONAPHTHALENE	BETA-CHLORONAPHTHALENE
	70776-03-3	CHLORINATED NAPHTHALENES	
	2234-13-1_A	OCTACHLORONAPHTHALENE (FRACTION A)	
	2234-13-1_B	OCTACHLORONAPHTHALENE (FRACTION B)	
HEAVY METALS	PB(CH2CH3)2	DIETHYL LEAD	

ENVIRODAT/NAQUADAT VARIABLES AND VARIABLE CODES

VARIABLE GROUP	VARIABLE CODE	VARIABLE NAME	OTHER NAME
HEAVY METALS	PB(CH3)2(CH2CH3)2	DIMETHYL DIETHYL LEAD	
	PB(CH3)2	DIMETHYL LEAD	
	PB_+4	LEAD ALKYL	
	PB_NON-RES	LEAD NON-RES	
	PBCH3(CH2CH3)3	METHYL TRIETHYL LEAD	
	PB(CH2CH3)4	TETRAETHYL LEAD	
	PB(CH3)4	TETRAMETHYL LEAD	
	PB(CH2CH3)3	TRIETHYL LEAD	
	PB(CH3)3CH2CH3	TRIMETHYL ETHYL LEAD	
	PB(CH3)3	TRIMETHYL LEAD	
HETEROCYCLICS	123-91-1	1,4-DIOXANE	1:4-DIOXAN, DIETHYLENE DIOXIDE
	120-72-9	INDOLE	
	91-22-5	QUINOLINE	
LIPIDS	LIPIDS_TOT	LIPIDS TOTAL	
MAJOR IONS	ALK_CACO3_GRAN	ALKALINITY GRAN CACO3	
	ALK_PHEN	ALKALINITY PHENOLPHTHALEIN CACO3	
	ALK_TOT	ALKALINITY TOTAL	
	ALK_CACO3_TOT	ALKALINITY TOTAL CACO3	
	ALK_HCO3_TOT	ALKALINITY TOTAL HCO3	
	ALK_UNFIL_CACO3_TOT	ALKALINITY TOTAL UNFILT. CACO3	
	CA_DIS	CALCIUM DISSOLVED	
	CA_EXTR	CALCIUM EXTRACTABLE	
	CA_HARDNESS	CALCIUM HARDNESS	
	CO3_DIS	CARBONATE DISSOLVED	
	CL	CHLORIDE	
	CL_DIS	CHLORIDE DISSOLVED	
	CL2	CHLORINE	
	F	FLUORIDE	
	F_DIS	FLUORIDE DISSOLVED	
	HARD_TOT_CACO3	HARDNESS TOTAL CACO3	
	MG_DIS	MAGNESIUM DISSOLVED	
	MG_EXTR	MAGNESIUM EXTRACTABLE	
	MG_HARD	MAGNESIUM HARDNESS	
	MG_TOT	MAGNESIUM TOTAL	
	NO3_DIS	NITROGEN DISSOLVED NITRATE	
	NO2_DIS	NITROGEN DISSOLVED NITRITE	
	NO3_TOT	NITROGEN TOTAL NITRATE	
	NO2_TOT	NITROGEN TOTAL NITRITE	
	K_DIS	POTASSIUM DISSOLVED	
	SIO2_DIS	SILICA DISSOLVED	
	SIO2_REAC	SILICA REACTIVE	
	SIO2_REAC_FIL	SILICA REACTIVE FILTERED	
	SIO2_TOT	SILICON DIOXIDE TOTAL	
	SI_DIS	SILICON DISSOLVED	
	SI_ORTHO	SILICON SOL. ORTHOSILICATE	
	SI_TOT	SILICON TOTAL	
	SIO2	SIO2	
	NA_DIS	SODIUM DISSOLVED	
	NA_TOT	SODIUM TOTAL	
	SO4	SULPHATE	
	SO4_DIS	SULPHATE DISSOLVED	
NEUTRAL HERBICIDES	15972-60-8	ALACHLOR	
	1912-24-9	ATRAZINE	
	6190-65-4	ATRAZINE DE-ETHYLATED	
	1007-28-9	ATRAZINE DE-ISOPROPYLATED	
	ATRA-100	ATRAZINE TOTAL	
	101-27-9	BARBAN	
	314-40-9	BROMACIL	
	101-21-3	CHLORPROPHAM	
	64902-72-3	CHLORSULFURON	
	21725-46-2	CYANAZINE	
	CYAN-100	CYANAZINE TOTAL	
	22936-86-3	CYPRAZINE TOTAL	
	78-48-8	DEF	DEFOLIANT
	2303-16-4	DIALLATE	
	49866-87-7	DIFENZOQUAT	
	2091-05-2	DINITRAMINE	
	330-54-1	DIURON	
	51235-04-2	HEXAZINONE	
	330-55-2	LINURON	
	51218-45-2	METOLACHLOR	
	21087-64-9	METRIBUZIN	
	METR-100	METRIBUZIN TOTAL	
	150-68-5	MONURON	
	1610-18-0	PROMETON	

ENVIRODAT/NAQUADAT VARIABLES AND VARIABLE CODES

VARIABLE GROUP	VARIABLE CODE	VARIABLE NAME	OTHER NAME
NEUTRAL HERBICIDES	7287-19-6	PROMETRYNE	
	1918-16-7	PROPACHLOR	
	709-98-8	PROPANIL	
	139-40-2	PROPAZINE	
	122-42-9	PROPHAM	
	122-34-9	SIMAZINE	
	SIMA-100	SIMAZINE TOTAL	
	34014-18-1	TEBUTHIURON	
	5902-51-2	TERBACIL	
	2303-17-5	TRIALLATE	
	1582-09-8	TRIFLURALIN	TREFLAN
NITROGEN	NH3	AMMONIA	
	NH3_DIS	AMMONIA DISSOLVED	
	NH3_TOT	AMMONIA TOTAL	
	621-64-7	N-NITROSODI-N-PROPYLAMINE	
	NO3_NO2	NITRATE/ NITRITE	
	N_ALBUMINOID	NITROGEN ALBUMINOID TOTAL N	
	N_DIS	NITROGEN DISSOLVED	
	N_KJEL_DIS	NITROGEN DISSOLVED KJELDAHL	
	N_NO3_NO2_DIS	NITROGEN DISSOLVED NO3 & NO2	NITRATE AND NITRITE DISSOLVED
	N_KJEL	NITROGEN KJELDAHL	
	NO2	NITROGEN NITRITE	
	N_NO3_NO2	NITROGEN NO3 & NO2	
	N_PART	NITROGEN PARTICULATE	
	N_ORG_PART	NITROGEN PARTICULATE ORGANIC	
	N_PART_TOT	NITROGEN PARTICULATE TOTAL	
	N_TOT	NITROGEN TOTAL	
	N_TOT_DIS	NITROGEN TOTAL DISSOLVED	
	N_KJEL_TOT	NITROGEN TOTAL KJELDAHL	
	N_ORG_TOT	NITROGEN TOTAL ORGANIC	
	UREA	UREA	
ORGANOCHLORINE PESTICIDES	309-00-2	ALDRIN	
	319-84-6	ALPHA-BENZENEHEXACHLORIDE	ALPHA-BHC
	5103-71-9	ALPHA-CHLORDANE	
	959-98-8	ALPHA-ENDOSULFAN	
	319-85-7	BETA-BENZENEHEXACHLORIDE	BETA-BHC
	33213-65-9	BETA-ENDOSULFAN	
	68535-69-3	BHC	
	8001-35-2	CAMPHECHLOR	TOXAPHENE
	50-29-3_TOT	DDT TOTAL	
	319-86-8	DELTA-BENZENEHEXACHLORIDE	DELTA-BHC
	115-32-2	DICOFOL	
	60-57-1	DIELDRIN	HEOD
	115-29-7	ENDOSULFAN SULPHATE TOTAL	
	72-20-8	ENDRIN	
	7421-93-4	ENDRIN ALDEHYDE	
	ORCIN-100	ENDRIN KETONE	
	72-56-01	ETHYLAN	
	58-89-9	GAMMA-BENZENEHEXACHLORIDE	LINDANE
	5103-74-2	GAMMA-CHLORDANE	
	76-44-8	HEPTACHLOR	
	1024-57-3	HEPTACHLOR EPOXIDE	
	118-74-1	HEXACHLOROBENZENE	PERCHLOROBENZENE
	72-43-5	METHOXYCHLOR	P,P'-METHOXYCHLOR
	2385-85-5	MIREX	
	53-19-0	O,P'-DDD	O,P'-TDE
	3424-82-6	O,P'-DDE	
	789-02-6	O,P'-DDT	
	72-54-8	P,P'-DDD	P,P'-TDE
	ORCIN-200	P,P'-DDD OLEFIN	
	72-55-9	P,P'-DDE	
	50-29-3	P,P'-DDT	
	72-56-0	PERTHANE	
	39801-14-4	PHOTOMIREX	
ORGANOPHOSPHORUS PESTICIDES	3244-90-4	ASPON	
	2642-71-9	AZINPHOS ETHYL	
	86-50-0	AZINPHOS METHYL	GUTHION
	786-19-6	CARBOPHENOTHION	METHYL TRITHION
	470-90-6	CHLORFENVINPHOS TOTAL	
	2921-88-2	CHLORPYRIFOS	DURSBAN
	56-72-4	COUMAPHOS	
	299-86-5	CRUFOMATE	
	298-03-3	DEMETON	
	333-41-5	DIAZINON	
	97-17-6	DICHLOFENTHION TOTAL	
	62-73-7	DICHLORVOS	

ENVIRODAT/NAQUADAT VARIABLES AND VARIABLE CODES

VARIABLE GROUP	VARIABLE CODE	VARIABLE NAME	OTHER NAME
ORGANOPHOSPHORUS PESTICIDES	60-51-5	DIMETHOATE	
	298-04-4	DISULFOTON	
	563-12-2	ETHION	
	13194-48-4	ETHODROPHOS	
	299-84-3	FENCHLORPHOS	RONNEL
	122-14-5	FENITROTHION	
	115-90-2	FENSULFOTHION	
	FENS-100	FENSULFOTHION TOTAL	
	55-38-9	FENTHION	
	944-22-9	FONOFOS	
	21609-90-5	LEPTOPHOS TOTAL	
	121-75-5	MALATHION	
	953-17-3	METHYLCARBOPHENOTHION	
	26718-65-0	MEVINPHOS	
	311-45-5	PARA-OXON	
	56-38-2	PARATHION	
	298-00-0	PARATHION METHYL	METHYL PARATHION
	298-02-2	PHORATE	
	2310-17-0	PHOSALONE TOTAL	
	732-11-6	PHOSMET TOTAL	IMIDAN
	13171-21-6	PHOSPHAMIDON	
	3383-96-8	TEMEPHOS	
	22248-79-9	TETRACHLORVINPHOS	
OTHER HERBICIDES	2764-72-9	DIQUAT	
	4685-14-7	PARAQUAT	
OTHER METALS	AL2O3	AL2O3	
	AL_NON-RES	ALUMINUM NON-RES	
	AS_NON-RES	ARSENIC NON-RES	
	CD_NON-RES	CADMIUM NON-RES	
	CAO	CAO	
	CR_NON-RES	CHROMIUM NON-RES	
	CO_NON-RES	COBALT NON-RES	
	CU_NON-RES	COPPER NON-RES	
	FE2O3	FE2O3	
	FE	IRON	
	FE_NON-RES	IRON NON-RES	
	K2O	K2O	
	MN_NON-RES	MANGANESE NON-RES	
	MGO	MGO	
	NA2O	NA2O	
	NI_NON-RES	NICKEL NON-RES	
	SE_NON-RES	SELENIUM NON-RES	
	TIO2	TIO2	
	V	VANADIUM	
	ZN_NON-RES	ZINC NON-RES	
OTHER PESTICIDES	584-79-2	ALLETHRIN	
	97-11-0	CYCLETHERIN	
	112-56-1	LETHANE 384	
OXYGEN	O_CARB_BOD10	CARBONACEOUS OXYGEN DEMAND BOD10	
	O_CARB_BOD14	CARBONACEOUS OXYGEN DEMAND BOD14	
	O_CARB_BOD5	CARBONACEOUS OXYGEN DEMAND BOD5	
	O_DIS_SAT_DEEP	OXYGEN % SATURATN. DEEPEST	
	O_DIS_SAT_UP	OXYGEN % SATURATN. UPPERMOST	
	O_BOD	OXYGEN BIOCHEMICAL DEMAND	
	O_BOD10	OXYGEN BIOCHEMICAL DEMAND BOD10	
	O_BOD14	OXYGEN BIOCHEMICAL DEMAND BOD14	
	O_BOD10_DIS	OXYGEN BIOCHEMICAL DEMAND DISSOLVED BOD10	
	O_BOD14_DIS	OXYGEN BIOCHEMICAL DEMAND DISSOLVED BOD14	
	O_BOD5_DIS	OXYGEN BIOCHEMICAL DEMAND DISSOLVED BOD5	
	O_CONSUMED	OXYGEN CONSUMED	
	O_DIS	OXYGEN DISSOLVED	
	O_DIS_SAT	OXYGEN DISSOLVED % SATURATN.	
	O_COD_DIS	OXYGEN DISSOLVED COD	
	O_DIS_DEEP	OXYGEN DISSOLVED DEEPEST	
	O_DIS_UP	OXYGEN DISSOLVED UPPERMOST	
	O_COD_TOT	OXYGEN TOTAL COD	
PCB'S	33284-54-7	2,3,5,6-TETRACHLOROBIPHENYL	
	12767-79-2	AROCLOR	
	12674-11-2	AROCLOR 1016	PCB'S
	11104-28-2	AROCLOR 1221	PCB'S
	11141-16-5	AROCLOR 1232	PCB'S
	53469-21-9	AROCLOR 1242	PCB'S
	12672-29-6	AROCLOR 1248	PCB'S
	11097-69-1	AROCLOR 1254	PCB'S

ENVIRODAT/NAQUADAT VARIABLES AND VARIABLE CODES

VARIABLE GROUP	VARIABLE CODE	VARIABLE NAME	OTHER NAME
PCB'S	11096-82-5	AROCLOR 1260	PCB'S
	1336-36-3	POLYCHLORINATED BIPHENYLS	PCB'S
PETROLEUM	BUNKER_OIL	HYDROCARBONS BUNKER OIL	
	DIESEL_OIL	HYDROCARBONS DIESEL OIL	
	FURNACE_OIL	HYDROCARBONS FURNACE OIL	
	GASOLINE_PREM	HYDROCARBONS GASOLINE (PREMIUM)	
	GASOLINE_REG	HYDROCARBONS GASOLINE (REGULAR)	
	JET_FUEL	HYDROCARBONS JET FUEL	
	KEROSENE	HYDROCARBONS KEROSENE	
	STOVE_OIL	HYDROCARBONS STOVE OIL	
	OIL_GREASE	OIL AND GREASE	
PHENOLS	4901-51-3	2,3,4,5-TETRACHLOROPHENOL	
	58-90-2	2,3,4,6-TETRACHLOROPHENOL	
	15950-66-0	2,3,4-TRICHLOROPHENOL	
	935-95-5	2,3,5,6-TETRACHLOROPHENOL	
	933-78-8	2,3,5-TRICHLOROPHENOL	
	933-75-5	2,3,6-TRICHLOROPHENOL	
	576-24-9	2,3-DICHLOROPHENOL	
	95-95-4	2,4,5-TRICHLOROPHENOL	
	88-06-2	2,4,6-TRICHLOROPHENOL	
	120-83-2	2,4-DICHLOROPHENOL	
	105-67-9	2,4-DIMETHYLPHENOL	
	51-28-1	2,4-DINITROPHENOL	
	583-78-8	2,5-DICHLOROPHENOL	
	87-65-0	2,6-DICHLOROPHENOL	
	98-28-2	2-CHLORO-4-TERTIARYBUTYLPHENOL	2-CHLORO-4-TERBUTYLPHENOL
	615-74-7	2-CHLORO-5-METHYLPHENOL	
	95-57-8	2-CHLOROPHENOL	O-CHLOROPHENOL
	534-52-1	2-METHYL-4,6-DINITROPHENOL	2-HYDROXY-3,5-DINITROTOLUENE
	88-75-5	2-NITROPHENOL	
	609-19-8	3,4,5-TRICHLOROPHENOL	
	95-77-2	3,4-DICHLOROPHENOL	
	591-35-5	3,5-DICHLOROPHENOL	
	108-43-0	3-CHLOROPHENOL	M-CHLOROPHENOL
	59-50-7	4-CHLORO-3-METHYLPHENOL	
	106-48-9	4-CHLOROPHENOL	P-CHLOROPHENOL
	100-02-7	4-NITROPHENOL	
	NONYLPHENOL	NONYLPHENOL	
	87-86-5	PENTACHLOROPHENOL	
	108-95-2	PHENOL	
	PHENOLIC_MAT	PHENOLIC MATERIAL	
PHOSPHOROUS	AIP	AIP	
	NAIP	NAIP	
	P2O5	P2O5	
	PO4_DIS	PHOSPHATE DISSOLVED	
	PO4_INOR_DIS	PHOSPHATE DISSOLVED INORGANIC	
	PO4_ORTHO_DIS	PHOSPHATE DISSOLVED ORTHO	
	PO4_INOR_PART	PHOSPHATE INORGANIC PARTICULATE	
	PO4_ORTHO_PART	PHOSPHATE PARTICULATE ORTHO	
	PO4_ORTHO_SOL	PHOSPHATE SOLUBLE ORTHO	
	PO4_TOT	PHOSPHATE TOTAL	
	PO4_TOT_FILTR	PHOSPHATE TOTAL (FILTRATE)	
	PO4_INOR_TOT	PHOSPHATE TOTAL INORGANIC	
	PO4_ORTHO_TOT	PHOSPHATE TOTAL ORTHO	
	P_BIOAVAIL_DIS	PHOSPHOROUS DISSOLVED BIOAVAIL.	
	P_INOR_DIS	PHOSPHOROUS DISSOLVED INORGANIC	
	P_ORG_DIS	PHOSPHOROUS DISSOLVED ORGANIC	
	P_DIS_ORTHO	PHOSPHOROUS DISSOLVED ORTHO	
	P_INOR	PHOSPHOROUS INORGANIC	
	P_ORG	PHOSPHOROUS ORGANIC	
	P_PART	PHOSPHOROUS PARTICULATE	
	P_BIOAVAIL_PAR	PHOSPHOROUS PARTICULATE BIOAVAIL.	
	P_PART_NFIL_TOT	PHOSPHOROUS PARTICULATE NON-FILTRAB. TOTAL	
	P_ORG_PART	PHOSPHOROUS PARTICULATE ORGANIC	
	P_PART_TOT	PHOSPHOROUS PARTICULATE TOTAL	
	P_SOL_REAC	PHOSPHOROUS SOLUBLE REACTIVE	
	P_PART_SUS	PHOSPHOROUS SUSPENDED PARTICULATE	
	P_TOT	PHOSPHOROUS TOTAL	
	P_TOT_FILTR	PHOSPHOROUS TOTAL (FILTRATE)	
	P_BIOAVAIL_TOT	PHOSPHOROUS TOTAL BIOAVAIL.	
	P_TOT_DIS	PHOSPHOROUS TOTAL DISSOLVED	
	P_INOR_TOT	PHOSPHOROUS TOTAL INORGANIC	
	P_ORG_TOT	PHOSPHOROUS TOTAL ORGANIC	
PHYSICALS	ACIDITY	ACIDITY	
	ACID_4.5_CACO3	ACIDITY PH=4.5 CACO3	

ENVIRODAT/NAQUADAT VARIABLES AND VARIABLE CODES

VARIABLE GROUP	VARIABLE CODE	VARIABLE NAME	OTHER NAME
PHYSICALS	ACID_5.6_CACO3	ACIDITY PH=5.6 CACO3	
	ACID_8.3_CACO3	ACIDITY PH=8.3 CACO3	
	ACID_TOT_CACO3	ACIDITY TOTAL CACO3	
	COLOR	COLOUR	
	COLOR_SITE	COLOUR (VISUAL) AT SITE	
	COLOR_SMPL	COLOUR (VISUAL) IN SAMPLE	
	COLOR_APP	COLOUR APPARENT	
	COLOR_TRUE	COLOUR TRUE	
	COLOR_TRUE_HAZEN	COLOUR TRUE HAZEN	
	COLOR_TRUE_TRANS	COLOUR TRUE TRANSMIT.	
	EH	EH	
	LIGHT_INTENS	LIGHT INTENSITY	
	PH	PH	
	REDOX_POT	REDOX POTENTIAL	
	RES_F	RESIDUE FILTERABLE	
	RES_FIX_F	RESIDUE FIXED FILTERABLE	
	RES_FIX_NF	RESIDUE FIXED NONFILTRABLE	
	RES_FIX_TOT	RESIDUE FIXED TOTAL	
	RES_NF	RESIDUE NONFILTRABLE	
	RES_TOT	RESIDUE TOTAL	
	RES_VOL_F	RESIDUE VOLATILE FILTERABLE	
	RES_VOL_NF	RESIDUE VOLATILE NONFILTRABLE	
	RES_VOL_TOT	RESIDUE VOLATILE TOTAL	
	SALINITY	SALINITY	
	SPEC_COND	SPECIFIC CONDUCTANCE	
	SPEC_COND_AMB_TEMP	SPECIFIC CONDUCTANCE AMB. TEMP.	
	TASTE_DESC	TASTE DESCRIPTIVE	
	TEMP	TEMPERATURE	
	TEMP_H2O	TEMPERATURE WATER	
	TEMP_H2O_EBT	TEMPERATURE WATER (EBT)	
	TEMP_H2O_DEEP	TEMPERATURE WATER DEEPEST	
	TEMP_H2O_UP	TEMPERATURE WATER UPPERMOST	
	TDS	TOTAL DISSOLVED SOLIDS	
	TURBID	TURBIDITY	
	TURBID_FORMAZIN	TURBIDITY FORMAZIN	
	TURBID_SECCHI_DSC	TURBIDITY LIGHT PENETRN. SECCHI DSC.	
	VOL	VOLUME	
RADIONUCLIDES	SB_RADIATION	ANTIMONY RADIATION SB-125	
	CS_RADIATION	CESIUM RADIATION CS-137	
	I_RADIATION	IODINE RADIATION I-131	
	PB_RAD	LEAD RADIATION PB-210	
	PB_RAD_TOT	LEAD RADIATION TOTAL PB-210	
	PO_RAD_TOT	POLONIUM RADIATION TOTAL PO-210	
	RA_RAD_DIS	RADIUM RADIATION DISSOLVED RA-226	
	RA_RAD	RADIUM RADIATION RA-226	
	RA_RAD_TOT	RADIUM RADIATION TOTAL RA-226	
	SR_RAD	STRONTIUM RADIATION SR-90	
	SR_RAD_TOT	STRONTIUM RADIATION TOTAL SR-90	
	TH_RAD_230	THORIUM RADIATION TH-230	
	TH_RAD_232	THORIUM RADIATION TH-232	
	TH_RAD_TOT_227	THORIUM RADIATION TOTAL TH-227	
	TH_RAD_TOT_228	THORIUM RADIATION TOTAL TH-228	
	TH_RAD_TOT_230	THORIUM RADIATION TOTAL TH-230	
	TH_RAD_TOT_232	THORIUM RADIATION TOTAL TH-232	
	H3_RAD	TRITIUM RADIATION H-3	
	U_DIS	URANIUM DISSOLVED	
	U_TOT	URANIUM TOTAL	
STEROIDS	57-88-5	CHOLESTEROL	
	360-68-9	COPROSTANOL	
SUBSTITUTED ALIPHATICS	107-02-8	ACROLEIN	2_PROPENAL
	107-13-1	ACRYLONITRILE	VINYL CYANIDE
	2008-41-5	BUTILATE	S-ETHYL N,N-DIISOBUTYLTHIOCARBAMAT
	3018-12-0	DICHLOROACETONITRILE	DICHLOROMETHYLCYANIDE
SUBSTITUTED AROMATIC HYDROCARBONS	526-73-8	1,2,3-TRIMETHYLBENZENE	HEMIMELLITENE;2,3-DIMETHYLTOLUENE
	95-63-6	1,2,4-TRIMETHYLBENZENE	PSI-CUMENE; 2,4-DIMETHYLTOLUENE
	122-66-7	1,2-DIPHENYLHYDRAZINE	
	135-01-3	1,2_DIETHYLBENZENE	
	108-68-8	1,3,5-TRIMETHYLBENZENE	MESITYLENE; 3,5-DIMETHYLTOLUENE
	141-93-5	1,3_DIETHYLBENZENE	
	105-05-5	1,4_DIETHYLBENZENE	
	611-14-3	1_ETHYL_2_METHYLBENZENE	2_ETHYLTOLUENE
	25550-14-5	1_ETHYL_3(4)_METHYLBENZENE	
	121-14-2	2,4-DINITROTOLUENE	
	606-20-2	2,6-DINITROTOLUENE	
	602-87-9	5_NITROACENAPHTHENE	5_NAN

ENVIRODAT/NAQUADAT VARIABLES AND VARIABLE CODES

VARIABLE GROUP	VARIABLE CODE	VARIABLE NAME	OTHER NAME
SUBSTITUTED AROMATIC HYDROCARBONS	92-87-5	BENZIDENE	
	86-74-8	CARBAZOLE	DIBENZOPYRROLE
	100-41-4	ETHYL BENZENE	
	98-82-8	ISOPROPYLBENZENE	CUMENE
	1330-20-7	M- + P-XYLENE	
	108-39-4	M-CRESOL	3-HYDROXY TOLUENE
	108-38-3	M-XYLENE	
	86-30-6	N-NITROSODIPHENYLAMINE	
	103-65-1	N-PROPYLBENZENE	
	98-95-3	NITROBENZENE	
	95-48-7	O-CRESOL	2-HYDROXY TOLUENE
	95-47-6	O-XYLENE	ORTHO-XYLENE
	106-44-5	P-CRESOL	4-HYDROXY TOLUENE
	106-42-3	P-XYLENE	
	100-42-5	STYRENE	
	108-88-3	TOLUENE	
SULPHUR	H2S	HYDROGEN SULFIDE H2S	
	S_MERCAPTAN	MERCAPTAN	
	S_DIS	SULPHIDE DISSOLVED	
	S	SULPHUR	
	S_TOT	SULPHUR TOTAL	
	R'-S-R_TOT	THIO-SALTS TOTAL	
	S2O3_TOT	THIOSULFATE TOTAL	
SURFACTANTS	MBAS	ANIONIC TENSIDES (MBAS)	
	LIGNO_SULPH	LIGNOSULPHONATES	
	LAS	N-ALKYL SULPHONATES (LAS)	
	NONIONIC_TENSIDES	NONIONIC TENSIDES	
	RESIN_ACID	RESIN ACID SOAPS	
TOTAL METALS	AL_TOT	ALUMINUM TOTAL	
	AL_TOT_REC	ALUMINUM TOTAL RECOVERABLE	
	SB_TOT	ANTIMONY TOTAL	
	AS_TOT	ARSENIC TOTAL	
	BA_TOT	BARIUM TOTAL	
	BA_TOT_REC	BARIUM TOTAL RECOVERABLE	
	BE_TOT	BERYLLIUM TOTAL	
	B_TOT	BORON TOTAL	
	CD_TOT	CADMIUM TOTAL	
	CD_TOT_REC	CADMIUM TOTAL RECOVERABLE	
	CA_TOT	CALCIUM TOTAL	
	CR_TOT	CHROMIUM TOTAL	
	CR_TOT_REC	CHROMIUM TOTAL RECOVERABLE	
	CO_TOT	COBALT TOTAL	
	CO_TOT_REC	COBALT TOTAL RECOVERABLE	
	CU_TOT	COPPER TOTAL	
	CU_TOT_REC	COPPER TOTAL RECOVERABLE	
	FE_TOT	IRON TOTAL	
	PB_TOT	LEAD TOTAL	
	PB_TOT_REC	LEAD TOTAL RECOVERABLE	
	LI_TOT	LITHIUM TOTAL	
	MN_TOT	MANGANESE TOTAL	
	HG_TOT	MERCURY TOTAL	
	MO_TOT	MOLYBDENUM TOTAL	
	NI_TOT	NICKEL TOTAL	
	NI_TOT_REC	NICKEL TOTAL RECOVERABLE	
	K_TOT	POTASSIUM TOTAL	
	SE_TOT	SELENIUM TOTAL	
	AG_TOT	SILVER TOTAL	
	SR_TOT	STRONTIUM TOTAL	
	TL_TOT	THALLIUM TOTAL	
	TH_TOT	THORIUM TOTAL	
	SN_TOT	TIN TOTAL	
	TI_TOT	TITANIUM TOTAL	
	V_TOT	VANADIUM TOTAL	
	V_TOT_REC	VANADIUM TOTAL RECOVERABLE	
	ZN_TOT	ZINC TOTAL	
	ZN_TOT_REC	ZINC TOTAL RECOVERABLE	

891 records selected.

VMV CODES ORDERED BY VARIABLE CODE

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VARIABLE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
14461	CLAY	% CLAY MINERALS	523	%			100
95227	71-55-6	1,1,1-TRICHLOROETHANE	2321	UG/L	1		500000
95122	71-55-6	1,1,1-TRICHLOROETHANE	1867	UG/L	.2		500000
00014	71-55-6	1,1,1-TRICHLOROETHANE	2348	UG/L	0.5		500.00
95224	79-34-5	1,1,2,2-TETRACHLOROETHANE	2321	UG/L	5		500000
95119	79-34-5	1,1,2,2-TETRACHLOROETHANE	1867	UG/L	5		500000
00016	79-34-5	1,1,2,2-TETRACHLOROETHANE	2348	UG/L	2.0		500.00
00033	10436-39-2	1,1,2,3_TETRACHLOROPROPENE	2348	UG/L	2.0		500.00
00021	76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUORO-ETHANE	2348	UG/L	2.0		500.00
95228	79-00-5	1,1,2-TRICHLOROETHANE	2321	UG/L	1		500000
95123	79-00-5	1,1,2-TRICHLOROETHANE	1867	UG/L	1		500000
00015	79-00-5	1,1,2-TRICHLOROETHANE	2348	UG/L	2.0		500.00
95214	75-34-3	1,1-DICHLOROETHANE	2321	UG/L	1		500000
95110	75-34-3	1,1-DICHLOROETHANE	1867	UG/L	.2		500000
00012	75-34-3	1,1-DICHLOROETHANE	2348	UG/L	0.5		500.00
95216	75-35-4	1,1-DICHLOROETHYLENE	2321	UG/L	1		500000
95112	75-35-4	1,1-DICHLOROETHYLENE	1867	UG/L	.5		500000
00024	75-35-4	1,1-DICHLOROETHYLENE	2348	UG/L	1.0		500.00
96835	634-66-2	1,2,3,4-TETRACHLOROBENZENE	2149	NG/G	2.7		
96775	634-66-2	1,2,3,4-TETRACHLOROBENZENE	2104	NG/G	5.0		
96286	634-66-2	1,2,3,4-TETRACHLOROBENZENE	1947	NG/L	0.110		
17842	634-66-2	1,2,3,4-TETRACHLOROBENZENE	677	UG/L	.002		
17847	634-66-2	1,2,3,4-TETRACHLOROBENZENE	681	MG/KG	.0008		
17848	634-66-2	1,2,3,4-TETRACHLOROBENZENE	680	MG/KG			
17898	634-66-2	1,2,3,4-TETRACHLOROBENZENE	709	NG/L			
96781	119-64-2	1,2,3,4-TETRAHYDRONAPHTHALENE	2131	NG/G	10.0		
96551	119-64-2	1,2,3,4-TETRAHYDRONAPHTHALENE	2065	NG/G	10.0		
96271	119-64-2	1,2,3,4-TETRAHYDRONAPHTHALENE	2015	NG/L	0.40		
95211	119-64-2	1,2,3,4-TETRAHYDRONAPHTHALENE	1981	NG/L	10		
18971	119-64-2	1,2,3,4-TETRAHYDRONAPHTHALENE	847	NG/L	50		
18942	119-64-2	1,2,3,4-TETRAHYDRONAPHTHALENE	918	MG/KG			
17844	634-90-2	1,2,3,5-TETRACHLOROBENZENE	680	MG/KG			
17845	634-90-2	1,2,3,5-TETRACHLOROBENZENE	681	MG/KG	.0008		
17894	634-90-2	1,2,3,5-TETRACHLOROBENZENE	709	NG/L			
17840	634-90-2	1,2,3,5-TETRACHLOROBENZENE	677	UG/L	.002		
96834	87-61-6	1,2,3-TRICHLOROBENZENE	2149	NG/G	1.9		
96774	87-61-6	1,2,3-TRICHLOROBENZENE	2104	NG/G	5.0		
96285	87-61-6	1,2,3-TRICHLOROBENZENE	1947	NG/L	0.070		
17888	87-61-6	1,2,3-TRICHLOROBENZENE	709	NG/L			
17832	87-61-6	1,2,3-TRICHLOROBENZENE	677	UG/L	.004		
17837	87-61-6	1,2,3-TRICHLOROBENZENE	681	MG/KG	.0009		
17838	87-61-6	1,2,3-TRICHLOROBENZENE	680	MG/KG			
00046	526-73-8	1,2,3-TRIMETHYLBENZENE	2348	UG/L	0.2		500.00
95542	636-28-2	1,2,4,5-TETRABROMOBENZENE	2059	UG/L	0.7		
96252	636-28-2	1,2,4,5-TETRABROMOBENZENE	2003	UG/L	0.7		
96232	95-94-3	1,2,4,5-TETRACHLOROBENZENE	1997	UG/L	0.7		
17846	95-94-3	1,2,4,5-TETRACHLOROBENZENE	681	MG/KG	.0008		
17849	95-94-3	1,2,4,5-TETRACHLOROBENZENE	680	MG/KG			
17899	95-94-3	1,2,4,5-TETRACHLOROBENZENE	709	NG/L			
17841	95-94-3	1,2,4,5-TETRACHLOROBENZENE	677	UG/L	.002		
96833	120-82-1	1,2,4-TRICHLOROBENZENE	2149	NG/G	3.6		
96773	120-82-1	1,2,4-TRICHLOROBENZENE	2104	NG/G	5.0		
96284	120-82-1	1,2,4-TRICHLOROBENZENE	1947	NG/L	0.330		
95037	120-82-1	1,2,4-TRICHLOROBENZENE	2319	UG/L	1		500000
17889	120-82-1	1,2,4-TRICHLOROBENZENE	709	NG/L			
17831	120-82-1	1,2,4-TRICHLOROBENZENE	677	UG/L	.004		
17836	120-82-1	1,2,4-TRICHLOROBENZENE	681	MG/KG	.0009		
17839	120-82-1	1,2,4-TRICHLOROBENZENE	680	MG/KG			
00055	120-82-1	1,2,4-TRICHLOROBENZENE	2348	UG/L	1.0		500.00
00045	95-63-6	1,2,4-TRIMETHYLBENZENE	2348	UG/L	0.2		500.00
00018	106-93-4	1,2-DIBROMOETHANE	2348	UG/L	2.0		500.00
96831	95-50-1	1,2-DICHLOROBENZENE	2149	NG/G	14.7		
96771	95-50-1	1,2-DICHLOROBENZENE	2104	NG/G	50.0		
96282	95-50-1	1,2-DICHLOROBENZENE	1947	NG/L	0.550		
95211	95-50-1	1,2-DICHLOROBENZENE	2321	UG/L	1		500000
95107	95-50-1	1,2-DICHLOROBENZENE	1867	UG/L	.5		500000
17878	95-50-1	1,2-DICHLOROBENZENE	709	NG/L			
17822	95-50-1	1,2-DICHLOROBENZENE	677	UG/L	.02		
17827	95-50-1	1,2-DICHLOROBENZENE	681	MG/KG	.008		
17828	95-50-1	1,2-DICHLOROBENZENE	680	MG/KG			
00052	95-50-1	1,2-DICHLOROBENZENE	2348	UG/L	0.5		500.00
00049	95-50-1	1,2-DICHLOROBENZENE	2346	UG/L	0.2		500.00
96304	107-06-2	1,2-DICHLOROETHANE	1947	NG/L	0.210		
95215	107-06-2	1,2-DICHLOROETHANE	2321	UG/L	1		500000
95111	107-06-2	1,2-DICHLOROETHANE	1867	UG/L	1		500000
00013	107-06-2	1,2-DICHLOROETHANE	2348	UG/L	1.0		500.00
95218	78-87-5	1,2-DICHLOROPROPANE	2321	UG/L	1		500000

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VARIABLE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
95114	78-87-5	1,2-DICHLOROPROPANE	1867	UG/L	.5		500000
00022	78-87-5	1,2-DICHLOROPROPANE	2348	UG/L	1.0		500.00
95041	122-66-7	1,2-DIPHENYLHYDRAZINE	2319	UG/L	1		500000
96541	626-39-1	1,3,5-TRIBROMOBENZENE	2059	UG/L	0.5		
96231	626-39-1	1,3,5-TRIBROMOBENZENE	1997	UG/L	0.5		
96251	626-39-1	1,3,5-TRIBROMOBENZENE	2003	UG/L	0.5		
96832	108-70-3	1,3,5-TRICHLOROBENZENE	2149	NG/G	1.8		
96772	108-70-3	1,3,5-TRICHLOROBENZENE	2104	NG/G	5.0		
96283	108-70-3	1,3,5-TRICHLOROBENZENE	1947	NG/L	0.400		
17884	108-70-3	1,3,5-TRICHLOROBENZENE	709	NG/L			
17830	108-70-3	1,3,5-TRICHLOROBENZENE	677	UG/L	.004		
17834	108-70-3	1,3,5-TRICHLOROBENZENE	680	MG/KG			
17835	108-70-3	1,3,5-TRICHLOROBENZENE	681	MG/KG	.0009		
00044	108-68-8	1,3,5-TRIMETHYLBENZENE	2348	UG/L	0.2		500.00
96540	108-36-1	1,3-DIBROMOBENZENE	2059	UG/L	0.8		
96230	108-36-1	1,3-DIBROMOBENZENE	1997	UG/L	0.8		
96250	108-36-1	1,3-DIBROMOBENZENE	2003	UG/L	0.8		
96829	541-73-1	1,3-DICHLOROBENZENE	2149	NG/G	11.1		
96769	541-73-1	1,3-DICHLOROBENZENE	2104	NG/G	50.0		
96289	541-73-1	1,3-DICHLOROBENZENE	1947	NG/L	0.500		
95212	541-73-1	1,3-DICHLOROBENZENE	2321	UG/L	1		500000
95108	541-73-1	1,3-DICHLOROBENZENE	1867	UG/L	.5		500000
17874	541-73-1	1,3-DICHLOROBENZENE	709	NG/L			
17820	541-73-1	1,3-DICHLOROBENZENE	677	UG/L	.02		
17824	541-73-1	1,3-DICHLOROBENZENE	680	MG/KG			
17825	541-73-1	1,3-DICHLOROBENZENE	681	MG/KG	.008		
00053	541-73-1	1,3-DICHLOROBENZENE	2348	UG/L	0.5		500.00
00047	141-93-5	1,3_DIETHYLBENZENE	2348	UG/L	0.2		500.00
96830	106-46-7	1,4-DICHLOROBENZENE	2149	NG/G	11.7		
96770	106-46-7	1,4-DICHLOROBENZENE	2104	NG/G	50.0		
96281	106-46-7	1,4-DICHLOROBENZENE	1947	NG/L	0.820		
95213	106-46-7	1,4-DICHLOROBENZENE	2321	UG/L	1		500000
95109	106-46-7	1,4-DICHLOROBENZENE	1967	UG/L	.5		500000
17879	106-46-7	1,4-DICHLOROBENZENE	709	NG/L			
17821	106-46-7	1,4-DICHLOROBENZENE	677	UG/L	.02		
17826	106-46-7	1,4-DICHLOROBENZENE	681	MG/KG	.008		
17829	106-46-7	1,4-DICHLOROBENZENE	680	MG/KG			
00054	106-46-7	1,4-DICHLOROBENZENE	2348	UG/L	0.5		500.00
00060	123-91-1	1,4-DIOXANE	2348	UG/L	500.0		
00048	105-05-5	1,4_DIETHYLBENZENE	2348	UG/L	0.2		500.00
00017	107-04-0	1-BROMO-2-CHLOROETHANE	2348	UG/L	2.0		500.00
95068	90-13-1	1-CHLORONAPHTHALENE	2319	UG/L	10		
96782	90-12-0	1-METHYLNAPHTHALENE	2131	NG/G	10.0		
96783	90-12-0	1-METHYLNAPHTHALENE	2131	NG/G	10.0		
96553	90-12-0	1-METHYLNAPHTHALENE	2065	NG/G	10.0		
96273	90-12-0	1-METHYLNAPHTHALENE	2015	NG/L	0.40		
96213	90-12-0	1-METHYLNAPHTHALENE	1981	NG/L	10		
18974	90-12-0	1-METHYLNAPHTHALENE	847	NG/L	50		
18944	90-12-0	1-METHYLNAPHTHALENE	918	MG/KG			
95136	90-12-0	1-METHYLNAPHTHALENE	2316	UG/L	0.1		
00292	90-12-0	1-METHYLNAPHTHALENE	2303	NG/G	80		
95069	90-12-0	1-METHYLNAPHTHALENE	2319	UG/L	10		
00043	611-14-3	1_ETHYL_2_METHYLBENZENE	2348	UG/L	0.2		500.00
00042	25550-14-5	1_ETHYL_3(4)_METHYLBENZENE	2348	UG/L	0.2		500.00
96599	4901-51-3	2,3,4,5-TETRACHLOROPHENOL	2083	NG/G	10		
17720	4901-51-3	2,3,4,5-TETRACHLOROPHENOL	643	UG/L	.01		
95070	4901-51-3	2,3,4,5-TETRACHLOROPHENOL	2319	UG/L	10		
17750	4901-51-3	2,3,4,5-TETRACHLOROPHENOL	643	NG/L	.01		
96598	58-90-2	2,3,4,6-TETRACHLOROPHENOL	2083	NG/G	10		
17723	58-90-2	2,3,4,6-TETRACHLOROPHENOL	643	UG/L	.1		
95153	58-90-2	2,3,4,6-TETRACHLOROPHENOL	2317	UG/L	5		
95064	58-90-2	2,3,4,6-TETRACHLOROPHENOL	2319	UG/L	10		
96595	15950-66-0	2,3,4-TRICHLOROPHENOL	2083	NG/G	10		
17710	15950-66-0	2,3,4-TRICHLOROPHENOL	643	UG/L	.01		
95065	15950-66-0	2,3,4-TRICHLOROPHENOL	2319	UG/L	10		
96160	15950-66-0	2,3,4-TRICHLOROPHENOL	2340	NG/G	495		
96138	15950-66-0	2,3,4-TRICHLOROPHENOL	2345	NG/L	0.8		
17745	15950-66-0	2,3,4-TRICHLOROPHENOL	643	NG/L	.01		
96543	33284-54-7	2,3,5,6-TETRACHLOROBIPHENYL	2059	UG/L	0.6		
96223	33284-54-7	2,3,5,6-TETRACHLOROBIPHENYL	1997	UG/L	0.6		
96253	33284-54-7	2,3,5,6-TETRACHLOROBIPHENYL	2003	UG/L	0.6		
96597	935-95-5	2,3,5,6-TETRACHLOROPHENOL	2083	NG/G	10		
17721	935-95-5	2,3,5,6-TETRACHLOROPHENOL	643	UG/L	.01		
95071	935-95-5	2,3,5,6-TETRACHLOROPHENOL	2319	UG/L	10		
17751	935-95-5	2,3,5,6-TETRACHLOROPHENOL	643	NG/L	.01		
96592	933-78-8	2,3,5-TRICHLOROPHENOL	2083	NG/G	10		
17711	933-78-8	2,3,5-TRICHLOROPHENOL	643	UG/L	.01		

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VARIABLE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
95072	933-78-8	2,3,5-TRICHLOROPHENOL	2319	UG/L	10		
96159	933-78-8	2,3,5-TRICHLOROPHENOL	2340	NG/G	380		
96137	933-78-8	2,3,5-TRICHLOROPHENOL	2345	NG/L	0.81		
17746	933-78-8	2,3,5-TRICHLOROPHENOL	643	NG/L	.01		
18535	50-31-7	2,3,6-TBA	928	UG/L	.03		
96944	50-31-7	2,3,6-TBA	2343	NG/L	0.4		
96591	933-75-5	2,3,6-TRICHLOROPHENOL	2083	NG/G	10		
17712	933-75-5	2,3,6-TRICHLOROPHENOL	643	UG/L	.01		
96161	933-75-5	2,3,6-TRICHLOROPHENOL	2340	NG/G	423		
96139	933-75-5	2,3,6-TRICHLOROPHENOL	2345	NG/L	0.44		
17747	933-75-5	2,3,6-TRICHLOROPHENOL	643	NG/L	.01		
96519	1746-01-6	2,3,7,8-TCDD	2045	NG/G			
96210	1746-01-6	2,3,7,8-TCDD	1947	NG/L	0.020		
00263	1746-01-6	2,3,7,8-TCDD	2323	NG/KG	2.0		
00251	1746-01-6	2,3,7,8-TCDD	2324	NG/KG	3.0		
00275	1746-01-6	2,3,7,8-TCDD	2325	PG/L	5.0		
00269	51207-31-9	2,3,7,8_TCDF	2323	NG/KG	2.0		
00257	51207-31-9	2,3,7,8_TCDF	2324	NG/KG	3.0		
00281	51207-31-9	2,3,7,8_TCDF	2325	PG/L	5.0		
96588	576-24-9	2,3-DICHLOROPHENOL	2083	NG/G	10		
17701	576-24-9	2,3-DICHLOROPHENOL	643	UG/L	.01		50000000
96156	576-24-9	2,3-DICHLOROPHENOL	2340	NG/G	420		
96134	576-24-9	2,3-DICHLOROPHENOL	2345	NG/L	0.71		
17740	576-24-9	2,3-DICHLOROPHENOL	643	NG/L	.01		50000000
00032	78-88-6	2,3-DICHLOROPROPENE	2348	UG/L	2.0		500.00
93038	93-76-5	2,4,5-T	1766	UG/L	.2		500000
18510	93-76-5	2,4,5-T	786	UG/L			500000
18511	93-76-5	2,4,5-T	926	MG/KG	.002		100000
18513	93-76-5	2,4,5-T	928	UG/L	.05		
96948	93-76-5	2,4,5-T	2343	NG/L	0.4		
18475	93-76-5	2,4,5-T	2349	UG/L	0.04		100.00
18512	1928-37-6	2,4,5-T METHYL ESTER	786	UG/L			500000
96593	95-95-4	2,4,5-TRICHLOROPHENOL	2083	NG/G	10		
96530	95-95-4	2,4,5-TRICHLOROPHENOL	2055	NG/G	290.0		
96265	95-95-4	2,4,5-TRICHLOROPHENOL	2011	NG/L	0.13		
17714	95-95-4	2,4,5-TRICHLOROPHENOL	643	NG/L	.01		
95012	95-95-4	2,4,5-TRICHLOROPHENOL	2319	UG/L	10		
18474	95-95-4	2,4,5-TRICHLOROPHENOL	2349	UG/L	0.02		100.00
96590	88-06-2	2,4,6-TRICHLOROPHENOL	2083	NG/G	10		
95531	88-06-2	2,4,6-TRICHLOROPHENOL	2055	NG/G	720.0		
96266	88-06-2	2,4,6-TRICHLOROPHENOL	2011	NG/L	0.13		
17713	88-06-2	2,4,6-TRICHLOROPHENOL	643	UG/L	.01		
95148	88-06-2	2,4,6-TRICHLOROPHENOL	2317	UG/L	5		
95013	88-06-2	2,4,6-TRICHLOROPHENOL	2319	UG/L	10		
17748	88-06-2	2,4,6-TRICHLOROPHENOL	643	NG/L	.01		
93037	94-75-7	2,4-D	1766	UG/L	.2		500000
18500	94-75-7	2,4-D	786	UG/L			500000
18501	94-75-7	2,4-D	926	MG/KG	.004		100000
18503	94-75-7	2,4-D	928	UG/L	.03		
96945	94-75-7	2,4-D	2343	NG/L	0.4		
18472	94-75-7	2,4-D	2349	UG/L	0.05		100.00
18502	1928-38-7	2,4-D METHYL ESTER	786	UG/L			500000
93043	94-82-6	2,4-DB	1766	UG/L	.3		500000
18549	94-82-6	2,4-DB	928	UG/L	.05		
18550	94-82-6	2,4-DB	786	UG/L			500000
18552	94-82-6	2,4-DB	926	MG/KG	.009		100000
96951	94-82-6	2,4-DB	2343	NG/L	0.4		
18551	18625-12-2	2,4-DB METHYL ESTER	786	UG/L			500000
96586	120-83-2	2,4-DICHLOROPHENOL	2083	NG/G	10		
17702	120-83-2	2,4-DICHLOROPHENOL	643	UG/L	.01		50000000
95146	120-83-2	2,4-DICHLOROPHENOL	2317	UG/L	1		
95003	120-83-2	2,4-DICHLOROPHENOL	2319	UG/L	10		
96155	120-83-2	2,4-DICHLOROPHENOL	2340	NG/G	369		
96133	120-83-2	2,4-DICHLOROPHENOL	2345	NG/L	0.44		
17741	120-83-2	2,4-DICHLOROPHENOL	643	NG/L	.01		50000000
95145	105-67-9	2,4-DIMETHYLPHENOL	2317	UG/L	1.0		
95004	105-67-9	2,4-DIMETHYLPHENOL	2319	UG/L	10		
95149	51-28-1	2,4-DINITROPHENOL	2317	UG/L	5		
95006	51-28-1	2,4-DINITROPHENOL	2319	UG/L	10		
95039	121-14-2	2,4-DINITROTOLUENE	2319	UG/L	1		500000
17703	583-78-8	2,5-DICHLOROPHENOL	643	UG/L	.01		50000000
96584	87-65-0	2,6-DICHLOROPHENOL	2083	NG/G	10		
17704	87-65-0	2,6-DICHLOROPHENOL	643	UG/L	.01		
95073	87-65-0	2,6-DICHLOROPHENOL	2319	UG/L	10		
96157	87-65-0	2,6-DICHLOROPHENOL	2340	NG/G	287		
96135	87-65-0	2,6-DICHLOROPHENOL	2345	NG/L	0.35		
17742	87-65-0	2,6-DICHLOROPHENOL	643	NG/L	.01		

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VARIABLE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
95040	606-20-2	2,6-DINITROTOLUENE	2319	UG/L	1		500000
96594	98-28-2	2-CHLORO-4-TERTIARYBUTYLPHENOL	2083	NG/G	10		
17737	98-28-2	2-CHLORO-4-TERTIARYBUTYLPHENOL	658	UG/L	.1		
96583	615-74-7	2-CHLORO-5-METHYLPHENOL	2083	NG/G	10		
17735	615-74-7	2-CHLORO-5-METHYLPHENOL	658	UG/L	.1		
95207	110-75-8	2-CHLOROETHYLVINYLETHER	2321	UG/L	4		500000
00056	110-75-8	2-CHLOROETHYLVINYLETHER	2348	UG/L	2.0		500.00
96784	91-58-7	2-CHLORONAPHTHALENE	2131	NG/G	10.0		
96554	91-58-7	2-CHLORONAPHTHALENE	2065	NG/G	10.0		
96274	91-58-7	2-CHLORONAPHTHALENE	2015	NG/L	0.40		
96214	91-58-7	2-CHLORONAPHTHALENE	1981	NG/L	10		
18975	91-58-7	2-CHLORONAPHTHALENE	847	NG/L	50		
18948	91-58-7	2-CHLORONAPHTHALENE	918	MG/KG			
95032	91-58-7	2-CHLORONAPHTHALENE	2319	UG/L	10		
00293	91-58-7	2-CHLORONAPHTHALENE	2303	NG/G	378		
96580	95-57-8	2-CHLOROPHENOL	2083	NG/G	10		
17730	95-57-8	2-CHLOROPHENOL	656	UG/L	.1		
95142	95-57-8	2-CHLOROPHENOL	2317	UG/L	1		
95002	95-57-8	2-CHLOROPHENOL	2319	UG/L	10		
95005	534-52-1	2-METHYL-4,6-DINITROPHENOL	2319	UG/L	1		500000
95151	534-52-1	2-METHYL-4,6-DINITROPHENOL	2317	UG/L	10		
95074	534-52-1	2-METHYL-4,6-DINITROPHENOL	2319	UG/L	10		
96552	91-57-6	2-METHYLNAPHTHALENE	2065	NG/G	10.0		
96272	91-57-6	2-METHYLNAPHTHALENE	2015	NG/L	0.40		
96212	91-57-6	2-METHYLNAPHTHALENE	1981	NG/L	10		
18973	91-57-6	2-METHYLNAPHTHALENE	847	NG/L	50		
18946	91-57-6	2-METHYLNAPHTHALENE	918	MG/KG			
95137	91-57-6	2-METHYLNAPHTHALENE	2316	UG/L	0.1		
95063	91-57-6	2-METHYLNAPHTHALENE	2319	UG/L	10		
00291	91-57-6	2-METHYLNAPHTHALENE	2303	NG/G	281		
95008	88-75-5	2-NITROPHENOL	2319	UG/L	1		500000
95144	88-75-5	2-NITROPHENOL	2317	UG/L	10		
96596	609-19-8	3,4,5-TRICHLOROPHENOL	2083	NG/G	10		
17715	609-19-8	3,4,5-TRICHLOROPHENOL	643	UG/L	.01		
96164	609-19-8	3,4,5-TRICHLOROPHENOL	2340	NG/G	425		
96142	609-19-8	3,4,5-TRICHLOROPHENOL	2345	NG/L	0.66		
17749	609-19-8	3,4,5-TRICHLOROPHENOL	643	NG/L	.01		
96589	95-77-2	3,4-DICHLOROPHENOL	2083	NG/G	10		
17705	95-77-2	3,4-DICHLOROPHENOL	643	UG/L	.01		
96163	95-77-2	3,4-DICHLOROPHENOL	2340	NG/G	288		
96141	95-77-2	3,4-DICHLOROPHENOL	2345	NG/L	0.76		
17743	95-77-2	3,4-DICHLOROPHENOL	643	NG/L	.01		
96587	591-35-5	3,5-DICHLOROPHENOL	2083	NG/G	10		
17706	591-35-5	3,5-DICHLOROPHENOL	643	UG/L	.01		
96162	591-35-5	3,5-DICHLOROPHENOL	2340	NG/G	295		
96140	591-35-5	3,5-DICHLOROPHENOL	2345	NG/L	0.45		
17744	591-35-5	3,5-DICHLOROPHENOL	643	NG/L	.01		
96581	108-43-0	3-CHLOROPHENOL	2083	NG/G	10		
17731	108-43-0	3-CHLOROPHENOL	656	UG/L	.1		
00029	107-05-1	3-CHLOROPROPENE	2348	UG/L	2.0		500.00
95045	101-55-3	4-BROMOPHENYL PHENYL ETHER	2319	UG/L	1		500000
96585	59-50-7	4-CHLORO-3-METHYLPHENOL	2083	NG/G	10		
17736	59-50-7	4-CHLORO-3-METHYLPHENOL	659	UG/L	.1		
95147	59-50-7	4-CHLORO-3-METHYLPHENOL	2317	UG/L	5		
95001	59-50-7	4-CHLORO-3-METHYLPHENOL	2319	UG/L	10		
96158	59-50-7	4-CHLORO-3-METHYLPHENOL	2340	NG/G	463		
96136	59-50-7	4-CHLORO-3-METHYLPHENOL	2345	NG/L	0.61		
96582	106-48-9	4-CHLOROPHENOL	2063	NG/G	10		
17732	106-48-9	4-CHLOROPHENOL	659	UG/L	.1		
95049	7005-72-3	4-CHLOROPHENYL PHENYL ETHER	2319	UG/L	1		500000
95150	100-02-7	4-NITROPHENOL	2317	UG/L	10		
95009	100-02-7	4-NITROPHENOL	2319	UG/L	10		
95060	602-87-9	5_NITROACENAPHTHENE	2319	UG/L	10		
96785	83-32-9	ACENAPHTHENE	2131	NG/G	10.0		
96556	83-32-9	ACENAPHTHENE	2065	NG/G	10.0		
96276	83-32-9	ACENAPHTHENE	2015	NG/L	0.40		
96216	83-32-9	ACENAPHTHENE	1981	NG/L	10		
18975	83-32-9	ACENAPHTHENE	1038	NG/L	50		
18977	83-32-9	ACENAPHTHENE	847	NG/L	50		
18950	83-32-9	ACENAPHTHENE	918	MG/KG			
18954	83-32-9	ACENAPHTHENE	918	MG/KG			
95130	83-32-9	ACENAPHTHENE	2316	UG/L	0.1		
95014	83-32-9	ACENAPHTHENE	2319	UG/L	10		
96785	208-96-8	ACENAPHTHYLENE	2131	NG/G	10.0		
96555	208-96-8	ACENAPHTHYLENE	2065	NG/G	10.0		
96275	208-96-8	ACENAPHTHYLENE	2015	NG/L	0.40		
96215	208-96-8	ACENAPHTHYLENE	1981	NG/L	10		

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VARIABLE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
95131	208-96-8	ACENAPHTHYLENE	2316	UG/L	0.1		
95015	208-96-8	ACENAPHTHYLENE	2319	UG/L	10		
00294	208-96-8	ACENAPHTHYLENE	2303	NG/G	89		
10260	ACIDITY	ACIDITY	387	UEQ/L			
10201	ACID_4.5_CACO3	ACIDITY PH=4.5 CACO3	381	MG/L	0.5		500
10210	ACID_5.6_CACO3	ACIDITY PH=5.6 CACO3	382	MG/L			500
10211	ACID_5.6_CACO3	ACIDITY PH=5.6 CACO3	382	MG/L			500
10251	ACID_8.3_CACO3	ACIDITY PH=8.3 CACO3	384	MG/L	0.5		500
10253	ACID_TOT_CACO3_CALC	ACIDITY TOTAL (CALCD.) CACO3	386	MG/L	0.1		
10252	ACID_TOT_CACO3	ACIDITY TOTAL CACO3	385	MG/L	0.1		500
00057	107-02-8	ACROLEIN	2348	UG/L	25.0		500.00
00058	107-13-1	ACRYLONITRILE	2348	UG/L	10.0		500.00
36920	AEROBIC_HETEROTROPHS	AEROBIC HETEROTROPHS	1437	NO/ML			999999
15451	AIP	AIP	585	MG/KG			100000
13401	AL2O3	AL2O3	457	%			25
93000	15972-60-8	ALACHLOR	1730	UG/L	.04		100000
18469	15972-60-8	ALACHLOR	2349	UG/L	0.10		100.00
18444	116-06-3	ALDICARB	911	UG/L	.09		
18454	116-06-3	ALDICARB	918	MG/KG	.018		
18460	116-06-3	ALDICARB	2349	UG/L	1.00		10.00
96814	309-00-2	ALDRIN	2149	NG/G	1.6		
96754	309-00-2	ALDRIN	2104	NG/G	5.0		
96016	309-00-2	ALDRIN	1947	NG/L	0.070		
18632	309-00-2	ALDRIN	719	MG/KG			
18130	309-00-2	ALDRIN	718	UG/L	.001		100000
18131	309-00-2	ALDRIN	719	MG/KG			500000
18132	309-00-2	ALDRIN	722	UG/L	.001		10000
18133	309-00-2	ALDRIN	675	MG/KG	.001		10000
18134	309-00-2	ALDRIN	673	NG/L	0.4		
95240	309-00-2	ALDRIN	2301	UG/L	0.01		
96915	309-00-2	ALDRIN	2339	NG/G	0.60		
18482	309-00-2	ALDRIN	2349	UG/L	0.002		100.000
95412	309-00-2	ALDRIN	2366	NG/G	4		
18139	ALDI-100	ALDRIN + HEOD (DIELDRIN) (CALCD.)	811	NG/L			
98031	ALGAE_SITE	ALGAE PRESENCE AT SITE	2266	DESCR CODE			
98030	ALGAE_SAMPLE	ALGAE PRESENCE IN SAMPLE	2266	DESCR CODE			
54204	ALGAL_COUNT_BACILLAR	ALGAL COUNT BACILLARIOPHYTA	1561	GIGA/M2			
54203	ALGAL_COUNT_CHLOROPH	ALGAL COUNT CHLOROPHYTA	1561	GIGA/M2			
54202	ALGAL_COUNT_CYANOPHY	ALGAL COUNT CYANOPHYTA	1561	GIGA/M2			
54201	ALGAL_COUNT_TOT	ALGAL COUNT TOTAL	1561	GIGA/M2			
10110	ALK_CACO3_GRAN	ALKALINITY GRAN CACO3	372	MG/L	0.1		500
10151	ALK_PHEN	ALKALINITY PHENOLPHTHALEIN CACO3	379	MG/L	0.1		500
10120	ALK_TOT	ALKALINITY TOTAL	376	MEQ/L			
10121	ALK_TOT	ALKALINITY TOTAL	377	MEQ/L			
10101	ALK_CACO3_TOT	ALKALINITY TOTAL CACO3	363	MG/L	0.5		500
10102	ALK_CACO3_TOT	ALKALINITY TOTAL CACO3	364	MG/L	0.5		500
10103	ALK_CACO3_TOT	ALKALINITY TOTAL CACO3	365	MG/L	0.5		500
10104	ALK_CACO3_TOT	ALKALINITY TOTAL CACO3	366	MG/L	0.5		500
10105	ALK_CACO3_TOT	ALKALINITY TOTAL CACO3	366	MG/L			500
10106	ALK_CACO3_TOT	ALKALINITY TOTAL CACO3	368	MG/L	2		500
10107	ALK_CACO3_TOT	ALKALINITY TOTAL CACO3	369	MG/L			500
10108	ALK_CACO3_TOT	ALKALINITY TOTAL CACO3	370	MG/L	0.5		500
10109	ALK_CACO3_TOT	ALKALINITY TOTAL CACO3	363	MG/L			500
10111	ALK_CACO3_TOT	ALKALINITY TOTAL CACO3	373	MG/L	0.1		500
10112	ALK_CACO3_TOT	ALKALINITY TOTAL CACO3	374	MG/L			500
10160	ALK_CACO3_TOT	ALKALINITY TOTAL CACO3	380	MG/L			500
10122	ALK_HCO3_TOT	ALKALINITY TOTAL HCO3	378	MEQ/L	0.01		
10116	ALK_UNFIL_CACO3_TOT	ALKALINITY TOTAL UNFILT. CACO3	368	MG/L	2		500
18110	584-79-2	ALLETHRIN	786	UG/L			900000
96005	ALPHA_RAD_TOT	ALPHA RADIATION TOTAL	2260	BQ/L			10
96811	319-84-6	ALPHA-BENZENEHEXACHLORIDE	2149	NG/G	2.3		
96751	319-84-6	ALPHA-BENZENEHEXACHLORIDE	2104	NG/G	5.0		
96014	319-84-6	ALPHA-BENZENEHEXACHLORIDE	1947	NG/L	1.300		
93020	319-84-6	ALPHA-BENZENEHEXACHLORIDE	1730	UG/L	.01		100000
18676	319-84-6	ALPHA-BENZENEHEXACHLORIDE	719	MG/KG			
18081	319-84-6	ALPHA-BENZENEHEXACHLORIDE	673	NG/L	0.4		
18074	319-84-6	ALPHA-BENZENEHEXACHLORIDE	675	MG/KG	.001		10000
18075	319-84-6	ALPHA-BENZENEHEXACHLORIDE	786	UG/L			900000
18076	319-84-6	ALPHA-BENZENEHEXACHLORIDE	719	MG/KG			500000
18077	319-84-6	ALPHA-BENZENEHEXACHLORIDE	722	UG/L	.001		10000
95241	319-84-6	ALPHA-BENZENEHEXACHLORIDE	2301	UG/L	0.02		
96912	319-84-6	ALPHA-BENZENEHEXACHLORIDE	2339	NG/G	0.40		
18485	319-84-6	ALPHA-BENZENEHEXACHLORIDE	2349	UG/L	0.001		900.000
95409	319-84-6	ALPHA-BENZENEHEXACHLORIDE	2366	NG/G	4		
95415	5103-71-9	ALPHA-CHLORDANE	2366	NG/G	4		
96817	5103-71-9	ALPHA-CHLORDANE	2149	NG/G	2.3		
96757	5103-71-9	ALPHA-CHLORDANE	2104	NG/G	5.0		

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VARIABLE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
96011	5103-71-9	ALPHA-CHLORDANE	1947	NG/L	0.070		
93001	5103-71-9	ALPHA-CHLORDANE	1730	UG/L	.02		100000
18661	5103-71-9	ALPHA-CHLORDANE	719	MG/KG			
18059	5103-71-9	ALPHA-CHLORDANE	673	NG/L	0.4		
18060	5103-71-9	ALPHA-CHLORDANE	718	UG/L	.005		100000
18061	5103-71-9	ALPHA-CHLORDANE	719	MG/KG	.005		500000
18062	5103-71-9	ALPHA-CHLORDANE	722	UG/L	.001		10000
18063	5103-71-9	ALPHA-CHLORDANE	675	MG/KG	.001		10000
95245	5103-71-9	ALPHA-CHLORDANE	2301	UG/L	0.01		
96918	5103-71-9	ALPHA-CHLORDANE	2339	NG/G	0.20		
18489	5103-71-9	ALPHA-CHLORDANE	2349	UG/L	0.001		100.000
95416	959-98-8	ALPHA-ENDOSULFAN	2366	NG/G	4		
96818	959-98-8	ALPHA-ENDOSULFAN	2149	NG/G	1.4		
96758	959-98-8	ALPHA-ENDOSULFAN	2104	NG/G	5.0		
96009	959-98-8	ALPHA-ENDOSULFAN	1947	NG/L	0.050		
93014	959-98-8	ALPHA-ENDOSULFAN	1730	UG/L	.01		50000
18651	959-98-8	ALPHA-ENDOSULFAN	719	MG/KG			
18085	959-98-8	ALPHA-ENDOSULFAN	673	NG/L	0.4		
18050	959-98-8	ALPHA-ENDOSULFAN	718	UG/L	.005		100000
18051	959-98-8	ALPHA-ENDOSULFAN	719	UG/L	.01		
18053	959-98-8	ALPHA-ENDOSULFAN	722	UG/L	.001		10000
18054	959-98-8	ALPHA-ENDOSULFAN	675	MG/KG	.001		10000
95256	959-98-8	ALPHA-ENDOSULFAN	2301	UG/L	0.01		
96919	959-98-8	ALPHA-ENDOSULFAN	2339	NG/G	0.15		
18496	959-98-8	ALPHA-ENDOSULFAN	2349	UG/L	0.003		100.000
13101	AL_DIS	ALUMINUM DISSOLVED	488	MG/L	.01		100000
13102	AL_DIS	ALUMINUM DISSOLVED	479	MG/L	.1		100000
13103	AL_DIS	ALUMINUM DISSOLVED	69	MG/L	.05		100000
13104	AL_DIS	ALUMINUM DISSOLVED	491	MG/L			100000
13105	AL_DIS	ALUMINUM DISSOLVED	481	MG/L			100000
13106	AL_DIS	ALUMINUM DISSOLVED	493	MG/L	.002		100000
13109	AL_DIS	ALUMINUM DISSOLVED	1502	MG/L	.001		100000
13111	AL_DIS	ALUMINUM DISSOLVED	1516	UG/L	2		100000
13301	AL_EXTR	ALUMINUM EXTRACTABLE	488	MG/L	.01		100000
13302	AL_EXTR	ALUMINUM EXTRACTABLE	499	MG/L	.1		100000
13303	AL_EXTR	ALUMINUM EXTRACTABLE	69	MG/L	.05		100000
13304	AL_EXTR	ALUMINUM EXTRACTABLE	481	MG/L			100000
13305	AL_EXTR	ALUMINUM EXTRACTABLE	493	MG/L	.002		100000
13306	AL_EXTR	ALUMINUM EXTRACTABLE	79	MG/L	.02		100000
13309	AL_EXTR	ALUMINUM EXTRACTABLE	504	MG/L	.0005		100000
13311	AL_EXTR	ALUMINUM EXTRACTABLE	1502	MG/L	.001		100000
13321	AL_EXTR	ALUMINUM EXTRACTABLE	1526	UG/L	10		100000
13601	AL_EXTR	ALUMINUM EXTRACTABLE	1529	MG/KG			100000
13202	AL_EXTR	ALUMINUM EXTRACTABLE	77	MG/L	.1		100000
13203	AL_EXTR	ALUMINUM EXTRACTABLE	69	MG/L	.05		100000
13330	AL_EXTR	ALUMINUM EXTRACTABLE	2346	MG/KG	0.2		
13054	AL_NON-RES	ALUMINUM NON-RES	487	MG/KG	5		10000
13322	AL_TOT	ALUMINUM TOTAL	441	UG/L	0.02		200000
13451	AL_TOT	ALUMINUM TOTAL	1728	MG/L	.005		
13001	AL_TOT	ALUMINUM TOTAL	458	MG/L			200000
13002	AL_TOT	ALUMINUM TOTAL	479	MG/L	1		200000
13003	AL_TOT	ALUMINUM TOTAL	69	MG/L	.05		200000
13004	AL_TOT	ALUMINUM TOTAL	481	MG/L			200000
13006	AL_TOT	ALUMINUM TOTAL	479	MG/L	.001		200000
13009	AL_TOT	ALUMINUM TOTAL	1502	MG/L	.001		200000
13050	AL_TOT	ALUMINUM TOTAL	58	MG/KG	500		200
13053	AL_TOT	ALUMINUM TOTAL	486	MG/KG	1		10000
13030	AL_TOT	ALUMINUM TOTAL	1520	MG/L	0.05		2.500
13020	AL_TOT_REC	ALUMINUM TOTAL RECOVERABLE	2365	MG/L			200000
98090	AMBIENT_CONDTN	AMBIENT CONDITIONS	2273	DESCR CODE			
94024	2032-59-9	AMINOCARB	1781	UG/L	2.5		200000
18339	2032-59-9	AMINOCARB	918	MG/KG	.018		
18332	2032-59-9	AMINOCARB	874	UG/L	.5		500000
18333	2032-59-9	AMINOCARB	875	UG/L	.05		500000
18334	2032-59-9	AMINOCARB	911	UG/L	.09		
07530	NH3	AMMONIA	251	MG/KG	10		
07565	NH3	AMMONIA	219	MG/L	0.03		50
07540	NH3_DIS	AMMONIA DISSOLVED	225	MG/L	0.005		1
07551	NH3_DIS	AMMONIA DISSOLVED	283	MG/L	0.1		50
07552	NH3_DIS	AMMONIA DISSOLVED	284	MG/L	0.001		50
07553	NH3_DIS	AMMONIA DISSOLVED	285	MG/L	0.5		50
07554	NH3_DIS	AMMONIA DISSOLVED	276	MG/L			50
07555	NH3_DIS	AMMONIA DISSOLVED	219	MG/L	0.001		50
07556	NH3_DIS	AMMONIA DISSOLVED	288	MG/L	0.005		50
07557	NH3_DIS	AMMONIA DISSOLVED	288	MG/L	0.002		50
07558	NH3_DIS	AMMONIA DISSOLVED	288	MG/L			50
07559	NH3_DIS	AMMONIA DISSOLVED	291	MG/L			50

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VARIABLE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
07560	NH3_DIS	AMMONIA DISSOLVED	292	MG/L	0.01		50
07561	NH3_DIS	AMMONIA DISSOLVED	219	MG/L			50
07562	NH3_DIS	AMMONIA DISSOLVED	219	MG/L			50
07563	NH3_DIS	AMMONIA DISSOLVED	288	MG/L	0.002		50
07564	NH3_DIS	AMMONIA DISSOLVED	267	MG/L	0.01		50
07566	NH3_DIS	AMMONIA DISSOLVED	2347	MG/L			
07501	NH3_TOT	AMMONIA TOTAL	283	MG/L			50
07503	NH3_TOT	AMMONIA TOTAL	217	MG/L	0.5		100
07504	NH3_TOT	AMMONIA TOTAL	276	MG/L	0.5		100
07505	NH3_TOT	AMMONIA TOTAL	219	MG/L	0.001		100
07506	NH3_TOT	AMMONIA TOTAL	278	MG/L	0.05		100
07507	NH3_TOT	AMMONIA TOTAL	264	MG/L			100
07509	NH3_TOT	AMMONIA TOTAL	280	MG/L			100
07569	NH3_UN_ION_CALC	AMMONIA UN-IONIZED (CALCD.)	298	MG/L			50
07570	NH3_UN_ION_CALC	AMMONIA UN-IONIZED (CALCD.)	299	MG/L			50
10702	MBAS	ANIONIC TENSIDES (MBAS)	429	MG/L			100
97170	DISCHARGE_YR_MEAN	ANNUAL MEAN DISCHARGE	2200	M3/S			
00297	120-12-7	ANTHRACENE	2303	NG/G	169		
95132	120-12-7	ANTHRACENE	2316	UG/L	0.1		
95016	120-12-7	ANTHRACENE	2319	UG/L	10		
96144	120-12-7	ANTHRACENE	2345	NG/L	0.26		
51008	SB_DIS	ANTIMONY DISSOLVED	1367	MG/L			
51101	SB_DIS	ANTIMONY DISSOLVED	1161	MG/L	.2		10000
51102	SB_DIS	ANTIMONY DISSOLVED	1183	MG/L	.0002		1000
51104	SB_DIS	ANTIMONY DISSOLVED	1399	MG/L	.001		
51201	SB_EXTR	ANTIMONY EXTRACTABLE	1550	MG/L	.2		10000
51202	SB_EXTR	ANTIMONY EXTRACTABLE	1183	MG/L	.0002		1000
51301	SB_EXTR	ANTIMONY EXTRACTABLE	479	MG/L	.2		10000
51302	SB_EXTR	ANTIMONY EXTRACTABLE	1183	MG/L	.0002		1000
51501	SB_RADIATION	ANTIMONY RADIATION SB-125	1572	BQ/L			
51001	SB_TOT	ANTIMONY TOTAL	479	MG/L	.2		10000
51002	SB_TOT	ANTIMONY TOTAL	1183	MG/L	.0002		1000
51003	SB_TOT	ANTIMONY TOTAL	1544	MG/L	.0005		
51004	SB_TOT	ANTIMONY TOTAL	1399	MG/L	.001		
51451	SB_TOT	ANTIMONY TOTAL	1554	MG/L	.01		
99007	SMPL_ARCHV	ARCHIVE SAMPLE	2277	DESCR CODE			1
18669	12767-79-2	AROCLOR	719	MG/KG			
18164	12767-79-2	AROCLOR	829	UG/L			100000
18168	12767-79-2	AROCLOR	718	UG/L	.1		500000
18169	12767-79-2	AROCLOR	719	MG/KG	.005		10000
18176	12767-79-2	AROCLOR	722	UG/L	.02		10000
18177	12767-79-2	AROCLOR	675	MG/KG	.01		10000
18179	12767-79-2	AROCLOR	668	MG/KG	.09		
17802	12767-79-2	AROCLOR	719	MG/KG	.005		10000
18163	12674-11-2	AROCLOR 1016	786	UG/L			10000
95265	12674-11-2	AROCLOR 1016	2301	UG/L	0.05		
95266	11104-28-2	AROCLOR 1221	2301	UG/L	0.05		
95267	11141-16-5	AROCLOR 1232	2301	UG/L	0.05		
18159	53469-21-9	AROCLOR 1242	718	UG/L			10000
18172	53469-21-9	AROCLOR 1242	719	MG/KG	.005		10000
18173	53469-21-9	AROCLOR 1242	722	UG/L	.02		10000
95268	53469-21-9	AROCLOR 1242	2301	UG/L	0.05		
18507	53469-21-9	AROCLOR 1242	2349	UG/L	0.01		
18161	12672-29-6	AROCLOR 1248	786	UG/L	.002		10000
18166	12672-29-6	AROCLOR 1248	719	MG/KG	.002		10000
95269	12672-29-6	AROCLOR 1248	2301	UG/L	0.05		
18160	11097-69-1	AROCLOR 1254	786	UG/L	.002		10000
18165	11097-69-1	AROCLOR 1254	719	MG/KG	.002		10000
18174	11097-69-1	AROCLOR 1254	722	UG/L	.02		10000
95270	11097-69-1	AROCLOR 1254	2301	UG/L	0.05		
18508	11097-69-1	AROCLOR 1254	2349	UG/L	0.01		
18162	11096-82-5	AROCLOR 1260	786	UG/L	.005		10000
18167	11096-82-5	AROCLOR 1260	719	MG/KG	.005		10000
18175	11096-82-5	AROCLOR 1260	722	UG/L	.02		10000
95271	11096-82-5	AROCLOR 1260	2301	UG/L	0.05		
18509	11096-82-5	AROCLOR 1260	2349	UG/L	0.01		
06510	AH	AROMATIC HYDROCARBONS	145	UG/L	1.0		500
33101	AS_DIS	ARSENIC DISSOLVED	1295	MG/L			10000
33103	AS_DIS	ARSENIC DISSOLVED	1362	MG/L	.005		20000
33104	AS_DIS	ARSENIC DISSOLVED	1399	MG/L	.0001		20000
33105	AS_DIS	ARSENIC DISSOLVED	1378	MG/L	.02		10000
33106	AS_DIS	ARSENIC DISSOLVED	1362	MG/L			99000
33108	AS_DIS	ARSENIC DISSOLVED	1367	MG/L			
33301	AS_EXTR	ARSENIC EXTRACTABLE	1381	MG/L	.005		10000
33303	AS_EXTR	ARSENIC EXTRACTABLE	1362	MG/L	.005		5000
33304	AS_EXTR	ARSENIC EXTRACTABLE	1399	MG/L	.0001		20000
33401	AS_EXTR	ARSENIC EXTRACTABLE	82	MG/KG			120

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VARIABLE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
33601	AS_EXTR	ARSENIC EXTRACTABLE	1385	MG/KG	0.05		100
33602	AS_EXTR	ARSENIC EXTRACTABLE	1373	MG/KG	0.05		
33305	AS_EXTR	ARSENIC EXTRACTABLE	2351	MG/L	0.001		0.050
33054	AS_NON-RES	ARSENIC NON-RES	1374	MG/KG	0.01		5000
33005	AS_TOT	ARSENIC TOTAL	1399	MG/L			10000
33006	AS_TOT	ARSENIC TOTAL	1362	MG/L	.005		10000
33007	AS_TOT	ARSENIC TOTAL	1372	MG/L	.001		10000
33008	AS_TOT	ARSENIC TOTAL	1367	MG/L	.00002		
33009	AS_TOT	ARSENIC TOTAL	1368	MG/L	.001		
33010	AS_TOT	ARSENIC TOTAL	1363	MG/L	.0001		
33011	AS_TOT	ARSENIC TOTAL	1370	MG/L	.0002		
33021	AS_TOT	ARSENIC TOTAL	1371	UG/L			100
33050	AS_TOT	ARSENIC TOTAL	1372	MG/KG	0.025		100
33052	AS_TOT	ARSENIC TOTAL	1373	MG/KG	0.05		
33001	AS_TOT	ARSENIC TOTAL	1361	MG/L			10000
33003	AS_TOT	ARSENIC TOTAL	1362	MG/L	.005		5000
33004	AS_TOT	ARSENIC TOTAL	1363	UG/L	1.0		1000
33012	AS_TOT	ARSENIC TOTAL	2350	MG/L	0.001		0.050
94000	3244-90-4	ASPON	1781	UG/L	.1		1000000
94023	1912-24-9	ATRAZINE	1781	UG/L	.6		200000
00315	1912-24-9	ATRAZINE	2303	NG/G	856		
95175	1912-24-9	ATRAZINE	2300	UG/L	0.50		
96906	1912-24-9	ATRAZINE	2339	NG/G	15.0		
96113	1912-24-9	ATRAZINE	2344	NG/L	3.0		
96150	1912-24-9	ATRAZINE	2345	NG/L	1.15		
18421	1912-24-9	ATRAZINE	2349	UG/L	0.05		100.00
95403	1912-24-9	ATRAZINE	2366	NG/G	4		
18416	6190-65-4	ATRAZINE DE-ETHYLATED	718	UG/L	.1		50000
18419	6190-65-4	ATRAZINE DE-ETHYLATED	786	UG/L	.02		100000
18418	1007-28-9	ATRAZINE DE-ISOPROPYLATED	786	UG/L	.02		100000
18415	ATRA-100	ATRAZINE TOTAL	882	UG/L	.1		100000
97002	AVG_DEPTH	AVERAGE WATER DEPTH AT SAMPLING STATION	2176	M			99999.9
18195	2642-71-9	AZINPHOS ETHYL	847	UG/L			5000000
96129	2642-71-9	AZINPHOS ETHYL	2341	NG/L	0.5		
94012	86-50-0	AZINPHOS METHYL	1781	UG/L	.2		200000
18190	86-50-0	AZINPHOS METHYL	843	UG/L	.1		10000
96128	86-50-0	AZINPHOS METHYL	2341	NG/L	12.5		
36003	BKGR_COLONIES_TOT	BACKGROUND COLONIES TOTAL	1411	NO/DL	1		999999
18180	101-27-9	BARBAN	843	UG/L	.4		10000
18181	101-27-9	BARBAN	911	UG/L	.11		
18186	101-27-9	BARBAN	918	MG/KG	.022		
96907	101-27-9	BARBAN	2339	NG/G	4.0		
96114	101-27-9	BARBAN	2344	NG/L	7.6		
95404	101-27-9	BARBAN	2366	NG/G	4		
56101	BA_DIS	BARIUM DISSOLVED	1583	MG/L	.1		10000
56102	BA_DIS	BARIUM DISSOLVED	1575	MG/L	.02		10000
56109	BA_DIS	BARIUM DISSOLVED	1502	MG/L	.001		
56111	BA_DIS	BARIUM DISSOLVED	1515	UG/L	1		50000
56052	BA_EXTR	BARIUM EXTRACTABLE	2346	MG/KG	0.01		
56201	BA_EXTR	BARIUM EXTRACTABLE	1575	MG/L	.1		10000
56202	BA_EXTR	BARIUM EXTRACTABLE	1575	MG/L	.02		10000
56301	BA_EXTR	BARIUM EXTRACTABLE	1575	MG/L	.1		1000
56302	BA_EXTR	BARIUM EXTRACTABLE	1590	MG/L	.02		10000
56311	BA_EXTR	BARIUM EXTRACTABLE	1502	MG/L	.001		
56321	BA_EXTR	BARIUM EXTRACTABLE	1526	UG/L	0.5		50000
99507	BA_EXTR	BARIUM EXTRACTABLE	2346	MG/KG	0.01		
56001	BA_TOT	BARIUM TOTAL	1575	MG/L	.1		10000
56002	BA_TOT	BARIUM TOTAL	1575	MG/L	.02		10000
56003	BA_TOT	BARIUM TOTAL	1575	MG/L			
56009	BA_TOT	BARIUM TOTAL	1502	MG/L	.001		
56011	BA_TOT	BARIUM TOTAL	1503	UG/L			
56012	BA_TOT	BARIUM TOTAL	441	UG/L	0.003		
56050	BA_TOT	BARIUM TOTAL	58	MG/KG	100		125000
56330	BA_TOT	BARIUM TOTAL	1520	MG/L	0.01		2.500
56020	BA_TOT_REC	BARIUM TOTAL RECOVERABLE	1581	MG/L	.1		
98001	BAR_PRESS	BAROMETRIC PRESSURE	2258	KPA			1000
98002	BAR_PRESS	BAROMETRIC PRESSURE	2259	KPA			
99021	SED_TEXTR	BASIC SEDIMENT TEXTURE	2284	DESCR CODE			9
96512	56-55-3	BENZ(A)ANTHRACENE	2045	NG/G	270.0		
96203	56-55-3	BENZ(A)ANTHRACENE	1947	NG/L	0.260		
18925	56-55-3	BENZ(A)ANTHRACENE	982	UG/L	.0001		
18935	56-55-3	BENZ(A)ANTHRACENE	1007	MG/KG	.01		
95017	56-55-3	BENZ(A)ANTHRACENE	2319	UG/L	10		
96301	71-43-2	BENZENE	1947	NG/L	0.320		
95100	71-43-2	BENZENE	1867	UG/L	.1		500000
95200	71-43-2	BENZENE	2321	UG/L	1		
00034	71-43-2	BENZENE	2348	UG/L	0.5		500.00

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VARIABLE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
95038	92-87-5	BENZIDENE	2319	UG/L	2		500000
96793	50-32-8	BENZO(A)PYRENE	2131	NG/G	30.0		
96563	50-32-8	BENZO(A)PYRENE	2065	NG/G	30.0		
96518	50-32-8	BENZO(A)PYRENE	2045	NG/G	30.0		
96209	50-32-8	BENZO(A)PYRENE	1947	NG/L	0.460		
96223	50-32-8	BENZO(A)PYRENE	1981	NG/L	30		
18900	50-32-8	BENZO(A)PYRENE	982	UG/L	.0002		
18910	50-32-8	BENZO(A)PYRENE	991	MG/KG	.0007		
95133	50-32-8	BENZO(A)PYRENE	2316	UG/L	0.01		
95020	50-32-8	BENZO(A)PYRENE	2319	UG/L	10		
18924	214-17-5	BENZO(B)CHRYSENE	982	UG/L	.0001		
18934	214-17-5	BENZO(B)CHRYSENE	1007	MG/KG	.01		
96791	205-99-2	BENZO(B)FLUORANTHENE	2131	NG/G	30.0		
96561	205-99-2	BENZO(B)FLUORANTHENE	2065	NG/G	30.0		
96516	205-99-2	BENZO(B)FLUORANTHENE	2045	NG/G	430.0		
96207	205-99-2	BENZO(B)FLUORANTHENE	1947	NG/L	0.500		
96221	205-99-2	BENZO(B)FLUORANTHENE	1981	NG/L	30		
18901	205-99-2	BENZO(B)FLUORANTHENE	982	UG/L	.005		
18911	205-99-2	BENZO(B)FLUORANTHENE	991	MG/KG	.0007		
95031	205-99-2	BENZO(B)FLUORANTHENE	2319	UG/L	10		
18917	192-97-2	BENZO(E)PYRENE	1007	MG/KG	.03		
18907	192-97-2	BENZO(E)PYRENE	982	UG/L	.0025		
96795	191-24-2	BENZO(G,H,I)PERYLENE	2131	NG/G	30.0		
96565	191-24-2	BENZO(G,H,I)PERYLENE	2065	NG/G	30.0		
96280	191-24-2	BENZO(G,H,I)PERYLENE	2015	NG/L	1.0		
18902	191-24-2	BENZO(G,H,I)PERYLENE	982	UG/L	.0006		
18912	191-24-2	BENZO(G,H,I)PERYLENE	991	MG/KG	.001		
00300	191-24-2	BENZO(G,H,I)PERYLENE	2303	NG/G	149		
95019	191-24-2	BENZO(G,H,I)PERYLENE	2319	UG/L	20		
18918	205-82-3	BENZO(J)FLUORANTHENE	1007	MG/KG	.13		
18908	205-82-3	BENZO(J)FLUORANTHENE	982	UG/L	.0025		
96792	207-08-9	BENZO(K)FLUORANTHENE	2131	NG/G	30.0		
96562	207-08-9	BENZO(K)FLUORANTHENE	2065	NG/G	30.0		
96517	207-08-9	BENZO(K)FLUORANTHENE	2045	NG/G	420.0		
96208	207-08-9	BENZO(K)FLUORANTHENE	1947	NG/L	0.490		
96222	207-08-9	BENZO(K)FLUORANTHENE	1981	NG/L	30		
18903	207-08-9	BENZO(K)FLUORANTHENE	982	UG/L	.0002		
18913	207-08-9	BENZO(K)FLUORANTHENE	991	MG/KG	.0003		
95018	207-08-9	BENZO(K)FLUORANTHENE	2319	UG/L	20		
95000	65-85-0	BENZOIC ACID	2319	UG/L	2		500000
18368	22212-55-1	BENZOYLPROP-ETHYL	882	UG/L	.025		
18410	22212-55-1	BENZOYLPROP-ETHYL	900	UG/L	.01		10000
96909	22212-55-1	BENZOYLPROP-ETHYL	2339	NG/G	1.00		
96116	22212-55-1	BENZOYLPROP-ETHYL	2344	NG/L	2.1		
95406	22212-55-1	BENZOYLPROP-ETHYL	2366	NG/G	2		
04101	BE_DIS	BERYLLIUM DISSOLVED	58	MG/L	.01		1000
04102	BE_DIS	BERYLLIUM DISSOLVED	69	MG/L	.001		1000
04103	BE_DIS	BERYLLIUM DISSOLVED	1502	MG/L			1000
04111	BE_DIS	BERYLLIUM DISSOLVED	1516	UG/L	1		1000
04052	BE_EXTR	BERYLLIUM EXTRACTABLE	2346	MG/KG	0.004		
04301	BE_EXTR	BERYLLIUM EXTRACTABLE	77	MG/L	.01		10000
04302	BE_EXTR	BERYLLIUM EXTRACTABLE	69	MG/L	.001		10000
04304	BE_EXTR	BERYLLIUM EXTRACTABLE	79	MG/L	.001		10000
04310	BE_EXTR	BERYLLIUM EXTRACTABLE	80	UG/L			10000
04311	BE_EXTR	BERYLLIUM EXTRACTABLE	1502	UG/L	0.2		1000
04401	BE_EXTR	BERYLLIUM EXTRACTABLE	82	MG/L			10000
99511	BE_EXTR	BERYLLIUM EXTRACTABLE	2346	MG/KG	0.004		
04001	BE_TOT	BERYLLIUM TOTAL	58	MG/L	.01		10000
04002	BE_TOT	BERYLLIUM TOTAL	69	MG/L	.001		10000
04009	BE_TOT	BERYLLIUM TOTAL	1502	MG/L	.001		10000
04010	BE_TOT	BERYLLIUM TOTAL	1502	UG/L	0.05		10000
04050	BE_TOT	BERYLLIUM TOTAL	58	MG/L	.01		10000
04330	BE_TOT	BERYLLIUM TOTAL	1520	MG/L	0.01		2.500
96010	BETA_RAD_TOT	BETA RADIATION TOTAL	2261	BQ/L			10
93021	319-85-7	BETA-BENZENEHEXACHLORIDE	1730	UG/L	.01		100000
18078	319-85-7	BETA-BENZENEHEXACHLORIDE	718	UG/L	.001		10000
95242	319-85-7	BETA-BENZENEHEXACHLORIDE	2301	UG/L	0.03		
18487	319-85-7	BETA-BENZENEHEXACHLORIDE	2349	UG/L	0.001		10.000
95423	33213-65-9	BETA-ENDOSULFAN	2366	NG/G	4		
96825	33213-65-9	BETA-ENDOSULFAN	2149	NG/G	2.9		
96765	33213-65-9	BETA-ENDOSULFAN	2104	NG/G	5.0		
96010	33213-65-9	BETA-ENDOSULFAN	1947	NG/L	0.090		
93015	33213-65-9	BETA-ENDOSULFAN	1730	UG/L	.01		50000
18656	33213-65-9	BETA-ENDOSULFAN	719	MG/KG			
18087	33213-65-9	BETA-ENDOSULFAN	673	NG/L	0.4		
18055	33213-65-9	BETA-ENDOSULFAN	718	UG/L	.005		100000
18056	33213-65-9	BETA-ENDOSULFAN	719	MG/KG	.01		500000

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VARIABLE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
18057	33213-65-9	BETA-ENDOSULFAN	722	UG/L	.001		10000
18058	33213-65-9	BETA-ENDOSULFAN	675	MG/KG	.001		10000
95257	33213-65-9	BETA-ENDOSULFAN	2301	UG/L	0.01		
96926	33213-65-9	BETA-ENDOSULFAN	2339	NG/G	0.65		
18499	33213-65-9	BETA-ENDOSULFAN	2349	UG/L	0.005		100.000
18814	68525-69-3	BHC	980	UG/L			
06201	HCO3_CALC	BICARBONATE (CALCD.)	135	MG/L			100000
06202	HCO3_CALC_LAB	BICARBONATE LAB (CALCD.)	136	MG/L			5000
54250	BIOMASS_CLADOPHORA	BIOMASS CLADOPHORA	1565	ML/.25M2			
95046	111-91-1	BIS(2-CHLOROETHOXY) ETHER	2319	UG/L	1		500000
95047	111-44-4	BIS(2-CHLOROETHYL) ETHER	2319	UG/L	1		500000
95048	108-60-11	BIS(2-CHLOROISOPROPYL) ETHER	2319	UG/L	1		500000
95302	137-89-3	BIS(2-ETHYLHEXYL) ISOPHTHALATE	1930	UG/L	1		500000
96514	117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	2045	NG/G	330.0		
96205	117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	1947	NG/L	0.160		
95301	117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	1930	UG/L	1		500000
18964	117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	1024	NG/L			
95055	117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	2319	UG/L	20		
95304	THALEST-100	BIS(4-METHYL-2-PENTYL) PHTHALATE	1930	UG/L	1		500000
95303	THALEST-200	BIS(ETHOXYHEXYL) PHTHALATE	1930	UG/L	1		500000
95305	117-82-8	BIS(METHOXYETHYL) PHTHALATE	1930	UG/L	1		500000
05102	B_DIS	BORON DISSOLVED	87	MG/L	.06		10000
05103	B_DIS	BORON DISSOLVED	88	MG/L			10000
05104	B_DIS	BORON DISSOLVED	89	MG/L			10000
05105	B_DIS	BORON DISSOLVED	90	MG/L	.02		10000
05106	B_DIS	BORON DISSOLVED	91	MG/L	.1		10000
05107	B_DIS	BORON DISSOLVED	1502	MG/L	.002		10000
05111	B_DIS	BORON DISSOLVED	1516	UG/L	2		10000
05101	B_DIS	BORON DISSOLVED	86	MG/L	.01		10000
05210	B_EXTR	BORON EXTRACTABLE	77	MG/L			10000
05230	B_EXTR	BORON EXTRACTABLE	2346	MG/KG	0.06		
05001	B_TOT	BORON TOTAL	83	MG/L			10000
05002	B_TOT	BORON TOTAL	84	MG/L			10000
05004	B_TOT	BORON TOTAL	85	UG/L	0.05		10000
35080	BOTTOM_CONDTN	BOTTOM CONDITION	2272	DESCR CODE			
99013	UNIT_BOTTOM	BOTTOM OF UNIT	2280	CM			100
93030	314-40-9	BROMACIL	1759	UG/L	.15		100000
95176	314-40-9	BROMACIL	2300	UG/L	1.0		
35201	BR_DIS	BROMIDE DISSOLVED	1407	MG/L			2000000
00051	108-86-1	BROMOBENZENE	2348	UG/L	1.0		500.00
95230	74-97-5	BROMOCHLOROMETHANE	2321	UG/L	1		500000
95202	75-25-2	BROMOFORM	2321	UG/L	5		500000
95102	75-25-2	BROMOFORM	1967	UG/L	5		500000
00007	75-25-2	BROMOFORM	2348	UG/L	2.0		500.00
95203	74-83-9	BROMOMETHANE	2321	UG/L	1		500000
00002	74-83-9	BROMOMETHANE	2348	UG/L	2.0		500.00
96360	1689-84-5	BROMOXYNIL	2040	UG/L	0.03		
96946	1689-84-5	BROMOXYNIL	2343	NG/L	0.3		
18461	2008-41-5	BUTILATE	2349	UG/L	0.03		10.00
95300	85-68-7	BUTYLBENZYL PHTHALATE	1930	UG/L	1		500000
18963	85-68-7	BUTYLBENZYL PHTHALATE	1024	NG/L			
00304	85-68-7	BUTYLBENZYL PHTHALATE	2303	NG/G	416		
95050	85-68-7	BUTYLBENZYL PHTHALATE	2319	UG/L	20		
96149	85-68-7	BUTYLBENZYL PHTHALATE	2345	NG/L	0.5		
06916	C/N	C/N RATIO	216	NO UNITS			100
48101	CD_DIS	CADMIUM DISSOLVED	1161	MG/L	.01		1000
48102	CD_DIS	CADMIUM DISSOLVED	1183	MG/L	.001		1000
48103	CD_DIS	CADMIUM DISSOLVED	481	MG/L			20000
48104	CD_DIS	CADMIUM DISSOLVED	1183	MG/L	.001		1000
48109	CD_DIS	CADMIUM DISSOLVED	1502	MG/L	.001		
48111	CD_DIS	CADMIUM DISSOLVED	1516	UG/L	1		50000
48201	CD_EXTR	CADMIUM EXTRACTABLE	479	MG/L	.01		1000
48202	CD_EXTR	CADMIUM EXTRACTABLE	1518	MG/L	.001		1000
48211	CD_EXTR	CADMIUM EXTRACTABLE	1519	UG/L	1		50000
48301	CD_EXTR	CADMIUM EXTRACTABLE	479	MG/L	.01		100
48302	CD_EXTR	CADMIUM EXTRACTABLE	1183	MG/L	.001		1000
48303	CD_EXTR	CADMIUM EXTRACTABLE	481	MG/L			5000
48305	CD_EXTR	CADMIUM EXTRACTABLE	479	MG/L	.001		100
48309	CD_EXTR	CADMIUM EXTRACTABLE	504	MG/L	.0005		100
48311	CD_EXTR	CADMIUM EXTRACTABLE	1502	MG/L	.001		
48321	CD_EXTR	CADMIUM EXTRACTABLE	1526	UG/L	1		2000
48401	CD_EXTR	CADMIUM EXTRACTABLE	1277	MG/KG			5000
48402	CD_EXTR	CADMIUM EXTRACTABLE	82	MG/KG			900
48601	CD_EXTR	CADMIUM EXTRACTABLE	1529	MG/KG	0.02		100
48602	CD_EXTR	CADMIUM EXTRACTABLE	1530	MG/KG	0.05		
48410	CD_EXTR	CADMIUM EXTRACTABLE	2346	MG/KG	0.02		
48054	CD_NON-RES	CADMIUM NON-RES	487	MG/KG	0.1		2000

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VARIABLE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
48000	CD_TOT	CADMIUM TOTAL	479	MG/L			
48001	CD_TOT	CADMIUM TOTAL	479	MG/L	.01		1000
48002	CD_TOT	CADMIUM TOTAL	1183	MG/L	.001		1000
48003	CD_TOT	CADMIUM TOTAL	481	MG/L			
48006	CD_TOT	CADMIUM TOTAL	1500	MG/L	.001		100
48007	CD_TOT	CADMIUM TOTAL	1183	MG/L	.001		1000
48009	CD_TOT	CADMIUM TOTAL	1502	MG/L	.001		
48011	CD_TOT	CADMIUM TOTAL	1503	UG/L	1		50000
48012	CD_TOT	CADMIUM TOTAL	441	UG/L	0.05		
48050	CD_TOT	CADMIUM TOTAL	58	MG/KG	10		
48051	CD_TOT	CADMIUM TOTAL	1226	MG/KG	2.0		1000
48052	CD_TOT	CADMIUM TOTAL	1508	MG/KG	30		
48053	CD_TOT	CADMIUM TOTAL	486	MG/KG	1		20000
48501	CD_TOT	CADMIUM TOTAL	1520	MG/L	0.008		2.500
48020	CD_TOT_REC	CADMIUM TOTAL RECOVERABLE	1224	MG/L	.001		
20100	CA_DIS	CALCIUM DISSOLVED	1057	MG/L			
20101	CA_DIS	CALCIUM DISSOLVED	1068	MG/L	0.5		90000
20102	CA_DIS	CALCIUM DISSOLVED	1069	MG/L			10000
20103	CA_DIS	CALCIUM DISSOLVED	1070	MG/L	0.05		9990
20104	CA_DIS	CALCIUM DISSOLVED	59	MG/L			2000
20107	CA_DIS	CALCIUM DISSOLVED	1070	MG/L	1.0		999
20108	CA_DIS	CALCIUM DISSOLVED	1070	MG/L			999
20110	CA_DIS	CALCIUM DISSOLVED	469	MG/L			100
20111	CA_DIS	CALCIUM DISSOLVED	1516	MG/L	0.006		999.999
20115	CA_DIS	CALCIUM DISSOLVED	1502	MG/L	0.001		
20105	CA_DIS_CALC	CALCIUM DISSOLVED (CALCD.)	1072	MG/L			
20301	CA_EXTR	CALCIUM EXTRACTABLE	459	MG/L	0.1		1000
20311	CA_EXTR	CALCIUM EXTRACTABLE	455	MG/L	0.50		
20321	CA_EXTR	CALCIUM EXTRACTABLE	1526	UG/L	100		100
20312	CA_EXTR	CALCIUM EXTRACTABLE	2322	MG/L	0.50		400
20330	CA_EXTR	CALCIUM EXTRACTABLE	2346	MG/KG	2.0		
20106	CA_HARDNESS	CALCIUM HARDNESS	1073	MG/L	1.0		90000
20109	CA_HARDNESS	CALCIUM HARDNESS	1073	MG/L			
20003	CA_TOT	CALCIUM TOTAL	459	MG/L	0.002		999
20004	CA_TOT	CALCIUM TOTAL	59	MG/L			
20005	CA_TOT	CALCIUM TOTAL	440	MG/L	0.05		
20007	CA_TOT	CALCIUM TOTAL	441	UG/L			
20050	CA_TOT	CALCIUM TOTAL	58	MG/KG	10.0		
20451	CA_TOT	CALCIUM TOTAL	1728	MG/L	0.01		
20051	CA_TOT	CALCIUM TOTAL	2313	MG/KG			500000
38090	8001-35-2	CAMPHECHLOR	786	UG/L			900000
95061	79-92-5	CAMPHENE	2319	UG/L	10		
20401	CAC	CAC	457	%			25
93003	133-06-2	CAPTAN	1730	UG/L	.15		100000
18170	133-06-2	CAPTAN	796	UG/L			900000
16403	759-94-4	CARBAMATE EPTC	893	UG/L	.5		10000
93102	63-25-2	CARBARYL	1775	UG/L	.2		500000
18397	63-25-2	CARBARYL	918	MG/KG	.008		
16399	63-25-2	CARBARYL	911	UG/L	.04		
18400	63-25-2	CARBARYL	786	UG/L			5000000
16401	63-25-2	CARBARYL	891	UG/L	.5		10000
95140	86-74-8	CARBAZOLE	2316	UG/L	0.1		
93101	1563-66-2	CARBOFURAN	1775	UG/L	1		500000
18570	1563-66-2	CARBOFURAN	951	UG/L	1		100000
18571	1563-66-2	CARBOFURAN	952	UG/L	.1		10000
18573	1563-66-2	CARBOFURAN	911	UG/L	.05		
18578	1563-66-2	CARBOFURAN	918	MG/KG	.01		
18462	1563-66-2	CARBOFURAN	2349	UG/L	0.05		100.00
18572	16709-30-1	CARBOFURAN 3-KETO	952	UG/L	.1		10000
06151	C_DIS_INOR	CARBON DISSOLVED INORGANIC	95	MG/L	.5		100000
06152	C_DIS_INOR	CARBON DISSOLVED INORGANIC	99	MG/L	.5		100000
06153	C_DIS_INOR	CARBON DISSOLVED INORGANIC	99	MG/L			100000
06154	C_DIS_INOR	CARBON DISSOLVED INORGANIC	119	MG/L	1		100000
06155	C_DIS_INOR	CARBON DISSOLVED INORGANIC	129	MG/L			100000
06159	C_DIS_INOR	CARBON DISSOLVED INORGANIC	121	MG/L	.2		100000
06161	C_DIS_INOR	CARBON DISSOLVED INORGANIC	131	MG/L			100000
06180	C_DIS_INOR	CARBON DISSOLVED INORGANIC	132	MG/L			100000
06181	C_DIS_INOR_CALC	CARBON DISSOLVED INORGANIC (CALCD.)	133	MG/L	.024		100000
06113	C_DIS_INOR_TOT	CARBON DISSOLVED INORGANIC TOTAL	123	MG/L	.1		100000
06101	C_DIS_ORG	CARBON DISSOLVED ORGANIC	95	MG/L	.5		10000
06103	C_DIS_ORG	CARBON DISSOLVED ORGANIC	98	MG/L	.2		10000
06104	C_DIS_ORG	CARBON DISSOLVED ORGANIC	99	MG/L	.1		10000
06106	C_DIS_ORG	CARBON DISSOLVED ORGANIC	118	MG/L			10000
06107	C_DIS_ORG	CARBON DISSOLVED ORGANIC	119	MG/L	.4		10000
06109	C_DIS_ORG	CARBON DISSOLVED ORGANIC	121	MG/L	.2		10000
06111	C_DIS_ORG	CARBON DISSOLVED ORGANIC	95	MG/L			10000
06117	C_DIS_ORG	CARBON DISSOLVED ORGANIC	2358	MG/L	.1		10000

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VARIABLE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
06108	C_DIS_ORG_CALC	CARBON DISSOLVED ORGANIC (CALCD.)	120	MG/L			10000
06112	C_DIS_ORG_TOT	CARBON DISSOLVED ORGANIC TOTAL	123	MG/L	.1		10000
06105	C_DIS_TOT	CARBON DISSOLVED TOTAL	97	MG/L			100000
00062	CS2	CARBON DISULFIDE	2348	UG/L	5.0		500.00
54502	C_FIXAT_EPILITHON	CARBON FIXATION EPILITHON	1566	MG/M3/HR	0.01		
54501	C_FIXAT_PHYTOPLANK	CARBON FIXATION PHYTOPLANKTON	1566	MG/M3/HR			
06080	C_INOR	CARBON INORGANIC	113	MG/KG			100000
06441	C_ORG	CARBON ORGANIC	142	MG/KG			50000000
06077	C_ORG	CARBON ORGANIC	110	MG/KG			50000000
06903	C_PART	CARBON PARTICULATE	210	MG/L			200000
06901	C_PART_ORG	CARBON PARTICULATE ORGANIC	210	MG/L	.005		200000
06902	C_PART_ORG	CARBON PARTICULATE ORGANIC	210	MG/L	.005		200000
06904	C_PART_ORG	CARBON PARTICULATE ORGANIC	213	MG/L			200000
06912	C_PART_ORG	CARBON PARTICULATE ORGANIC	210	%			200000
06905	C_PART_TOT	CARBON PARTICULATE TOTAL	214	MG/L	.001		200000
96302	56-23-5	CARBON TETRACHLORIDE	1947	NG/L	0.180		
95204	56-23-5	CARBON TETRACHLORIDE	2321	UG/L	1		500000
95103	56-23-5	CARBON TETRACHLORIDE	1867	UG/L	.1		500000
00010	56-23-5	CARBON TETRACHLORIDE	2348	UG/L	0.5		500.00
06411	C_TOT	CARBON TOTAL	142	MG/KG			100000
06191	C_TOT	CARBON TOTAL	134	MG/L	.005		100000
06006	C_TOT	CARBON TOTAL	97	MG/L	.5		200000
06015	C_TOT	CARBON TOTAL	105	MG/L	1		200000
06074	C_TOT	CARBON TOTAL	105	MG/L	5		200000
06075	C_TOT	CARBON TOTAL	110	MG/KG			50000000
05016	C_TOT	CARBON TOTAL	2306	MG/L	5.0		100
06051	C_INOR_TOT	CARBON TOTAL INORGANIC	95	MG/L	.5		100000
06052	C_INOR_TOT	CARBON TOTAL INORGANIC	99	MG/L	.5		100000
06053	C_INOR_TOT	CARBON TOTAL INORGANIC	113	MG/L			100000
06054	C_INOR_TOT	CARBON TOTAL INORGANIC	2306	MG/L	5.0		100
05001	C_ORG_TOT	CARBON TOTAL ORGANIC	95	MG/L	.5		200000
06003	C_ORG_TOT	CARBON TOTAL ORGANIC	97	MG/L	.5		200000
06004	C_ORG_TOT	CARBON TOTAL ORGANIC	98	MG/L	.2		200000
06005	C_ORG_TOT	CARBON TOTAL ORGANIC	99	MG/L	.1		200000
06007	C_ORG_TOT	CARBON TOTAL ORGANIC	105	MG/L			200000
06008	C_ORG_TOT	CARBON TOTAL ORGANIC	102	MG/L	.03		200000
05009	C_ORG_TOT	CARBON TOTAL ORGANIC	96	MG/L			200000
06010	C_ORG_TOT	CARBON TOTAL ORGANIC	99	MG/L	.1		200000
06076	C_ORG_TOT	CARBON TOTAL ORGANIC	110	MG/KG			50000000
05011	C_ORG_TOT	CARBON TOTAL ORGANIC	2306	MG/L	5.0		100
06002	C_ORG_TOT_CALC	CARBON TOTAL ORGANIC (CALCD.)	96	MG/L			200000
08218	O_CARB_BOD10	CARBONACEOUS OXYGEN DEMAND BOD10	331	MG/L	0.1		500
08219	O_CARB_BOD14	CARBONACEOUS OXYGEN DEMAND BOD14	331	MG/L	0.1		500
08217	O_CARB_BOD5	CARBONACEOUS OXYGEN DEMAND BOD5	331	MG/L	0.1		500
06301	CO3	CARBONATE (CALCD.)	137	MG/L			50000
06302	CO3_DIS	CARBONATE DISSOLVED	136	MG/L			50000
94015	786-19-6	CARBOPHENOTHION	1781	UG/L	.3		200000
19320	786-19-6	CARBOPHENOTHION	847	UG/L			5000000
96126	786-19-6	CARBOPHENOTHION	2341	NG/L	0.5		
55501	CS_RADIATION	CESIUM RADIATION CS-137	1571	BQ/L			
55502	CS_RADIATION	CESIUM RADIATION CS-137	1572	BQ/L			
55505	CS_RADIATION	CESIUM RADIATION CS-137	1573	BQ/L			
55601	CS_RADIATION	CESIUM RADIATION CS-137	1574	BQ/KG			
18069	57-74-9	CHLORDANE TOTAL ISOMERS (CALCD.)	780	UG/L			
18225	470-90-6	CHLORFENVINPHOS TOTAL	718	UG/L	.1		10000
17211	CL	CHLORIDE	635	MG/L	0.5		30000
17201	CL_DIS	CHLORIDE DISSOLVED	625	MG/L	0.1		30000
17202	CL_DIS	CHLORIDE DISSOLVED	626	MG/L	0.1		30000
17203	CL_DIS	CHLORIDE DISSOLVED	627	MG/L	0.1		30000
17204	CL_DIS	CHLORIDE DISSOLVED	628	MG/L			30000
17205	CL_DIS	CHLORIDE DISSOLVED	636	MG/L			30000
17206	CL_DIS	CHLORIDE DISSOLVED	630	MG/L	0.05		30000
17207	CL_DIS	CHLORIDE DISSOLVED	631	MG/L			30000
17208	CL_DIS	CHLORIDE DISSOLVED	630	MG/L			30000
17209	CL_DIS	CHLORIDE DISSOLVED	617	MG/L	0.01		30000
17210	CL_DIS	CHLORIDE DISSOLVED	634	MG/L			30000
18231	70776-03-3	CHLORINATED NAPHTHALENES	718	UG/L	.1		10000
17101	CL2	CHLORINE	623	MG/L			30000
17102	CL2	CHLORINE	624	MG/L			30000
95205	108-90-7	CHLOROBENZENE	2321	UG/L	1		500000
95104	108-90-7	CHLOROBENZENE	1867	UG/L	.2		500000
00050	108-90-7	CHLOROBENZENE	2348	UG/L	0.5		500.00
95206	75-00-3	CHLOROETHANE	2321	UG/L	1		500000
00011	75-00-3	CHLOROETHANE	2348	UG/L	5.0		500.00
96303	67-66-3	CHLOROFORM	1947	NG/L	0.220		
95208	67-66-3	CHLOROFORM	2321	UG/L	1		500000
95105	67-66-3	CHLOROFORM	1667	UG/L	.1		500000

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VARIABLE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
17403	67-66-3	CHLOROFORM	637	UG/L	.1		1000000
17413	67-66-3	CHLOROFORM	637	MG/L			1000000
00004	67-66-3	CHLOROFORM	2348	UG/L	0.5		500.00
00001	74-87-3	CHLOROMETHANE	2348	UG/L	5.0		500.00
06711	CHLOROPHYLL_A	CHLOROPHYLL A	190	MG/L	.001		500
06715	CHLOROPHYLL_A	CHLOROPHYLL A	197	MG/M3	0.1		500
06716	CHLOROPHYLL_A	CHLOROPHYLL A	198	MG/L	.001		500
06717	CHLOROPHYLL_A	CHLOROPHYLL A	198	MG/L	.001		500
06718	CHLOROPHYLL_A	CHLOROPHYLL A	198	MG/L			500
06719	CHLOROPHYLL_A	CHLOROPHYLL A	201	MG/M3			500
06722	CHLOROPHYLL_A	CHLOROPHYLL A	204	UG/L			500
06708	CHLOROPHYLL_A	CHLOROPHYLL A	190	MG/L	.001		500
06725	CHLOROPHYLL_A	CHLOROPHYLL A	2333	MG/L			
06724	CHLOROPHYLL_A_ACTIVE	CHLOROPHYLL A ACTIVE	205	UG/M3			500
06721	CHLOROPHYLL_A_EPILIT	CHLOROPHYLL A EPILITHON	198	MG/M3			500
06714	CHLOROPHYLL_A_EXT	CHLOROPHYLL A EXTRBLE.	196	MG/L			500
06720	CHLOROPHYLL_A_PHYTO	CHLOROPHYLL A PHYTOPLANKTON	198	MG/M3	0.001		500
06723	CHLOROPHYLL_A_TOT	CHLOROPHYLL A TOTAL	205	MG/M3			500
06712	CHLOROPHYLL_B	CHLOROPHYLL B	190	MG/L	.001		500
06709	CHLOROPHYLL_B	CHLOROPHYLL B	190	MG/L			500
06710	CHLOROPHYLL_C	CHLOROPHYLL C	190	MG/L			500
06713	CHLOROPHYLL_C	CHLOROPHYLL C	190	MG/L	.001		500
18447	101-21-3	CHLORPROPHAM	911	UG/L	.1		
18457	101-21-3	CHLORPROPHAM	918	MG/KG	.02		
93013	2921-88-2	CHLORPYRIFOS	1730	UG/L	.01		100000
18210	2921-88-2	CHLORPYRIFOS	786	UG/L			5000000
18032	2921-88-2	CHLORPYRIFOS	718	UG/L	.1		500000
93300	64902-72-3	CHLORSULFURON	1780	UG/L	.02		200000
96570	57-88-5	CHOLESTEROL	2081	UG/G	0.05		
05800	57-88-5	CHOLESTEROL	208	UG/L	0.05		500
24056	CR_DIS	CHROMIUM DISSOLVED	481	MG/L	.005		
24104	CR_DIS	CHROMIUM DISSOLVED	1113	MG/L	.01		10000
24105	CR_DIS	CHROMIUM DISSOLVED	1114	MG/L	.0002		10000
24109	CR_DIS	CHROMIUM DISSOLVED	1132	MG/L	.0001		
24111	CR_DIS	CHROMIUM DISSOLVED	1515	UG/L	2		10000
24202	CR_EXTR	CHROMIUM EXTRACTABLE	2363	MG/L	.01		10000
24203	CR_EXTR	CHROMIUM EXTRACTABLE	1114	MG/L	.0002		10000
24211	CR_EXTR	CHROMIUM EXTRACTABLE	1519	MG/L	.002		10000
24302	CR_EXTR	CHROMIUM EXTRACTABLE	1113	MG/L	.01		10000
24303	CR_EXTR	CHROMIUM EXTRACTABLE	1114	MG/L	.002		10000
24305	CR_EXTR	CHROMIUM EXTRACTABLE	1139	MG/L	.001		
24306	CR_EXTR	CHROMIUM EXTRACTABLE	481	UG/L			3000
24311	CR_EXTR	CHROMIUM EXTRACTABLE	1502	MG/L	.001		
24321	CR_EXTR	CHROMIUM EXTRACTABLE	1526	UG/L	1		2000
24350	CR_EXTR	CHROMIUM EXTRACTABLE	1143	UG/L			300
24401	CR_EXTR	CHROMIUM EXTRACTABLE	82	MG/KG			850
24601	CR_EXTR	CHROMIUM EXTRACTABLE	1529	MG/KG	0.2		100
24602	CR_EXTR	CHROMIUM EXTRACTABLE	1530	MG/KG	0.25		
24430	CR_EXTR	CHROMIUM EXTRACTABLE	2346	MG/KG	0.02		
24101	CR_+6	CHROMIUM HEXAVALENT	1127	MG/L			10
24102	CR_+6_DIS	CHROMIUM HEXAVALENT DISSOLVED	1128	UG/L	1.0		50000
24103	CR_+6_DIS	CHROMIUM HEXAVALENT DISSOLVED	1128	MG/L			
24054	CR_NON-RES	CHROMIUM NON-RES	487	MG/KG	0.5		5000
24051	CR_TOT	CHROMIUM TOTAL	1122	MG/KG	0.5		1000
24053	CR_TOT	CHROMIUM TOTAL	1123	MG/KG	5.0		500
24055	CR_TOT	CHROMIUM TOTAL	1508	MG/KG	100.0		
24000	CR_TOT	CHROMIUM TOTAL	1113	MG/L			
24001	CR_TOT	CHROMIUM TOTAL	1112	MG/L			10000
24002	CR_TOT	CHROMIUM TOTAL	1113	MG/L	.01		10000
24003	CR_TOT	CHROMIUM TOTAL	1114	MG/L	.002		10000
24004	CR_TOT	CHROMIUM TOTAL	481	MG/L			
24006	CR_TOT	CHROMIUM TOTAL	1116	MG/L	.001		1000
24009	CR_TOT	CHROMIUM TOTAL	1502	MG/L	.002		
24011	CR_TOT	CHROMIUM TOTAL	1503	UG/L	2		500
24012	CR_TOT	CHROMIUM TOTAL	441	UG/L	0.02		
24050	CR_TOT	CHROMIUM TOTAL	58	MG/KG	10.0		
24060	CR_TOT	CHROMIUM TOTAL	1520	MG/L	0.01		2.300
24049	CR_TOT_LOAD	CHROMIUM TOTAL (CALCD.) LOAD	1120	KG/DAY			
24020	CR_TOT_REC	CHROMIUM TOTAL RECOVERABLE	2365	MG/L			
96513	218-01-9	CHRYSENE	2045	NG/G	490.0		
96204	218-01-9	CHRYSENE	1947	NG/L	0.570		
18923	218-01-9	CHRYSENE	982	UG/L	.001		
18933	218-01-9	CHRYSENE	1007	MG/KG	.05		
95021	218-01-9	CHRYSENE	2319	UG/L	10		
00026	156-59-2	CIS-1,2-DICHLOROETHENE	2348	UG/L	0.5		500.00
95219	10061-01-5	CIS-1,3-DICHLOROPROPENE	2321	UG/L	3		500000
95115	10061-01-5	CIS-1,3-DICHLOROPROPENE	1867	UG/L	.5		500000

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VARIABLE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
00031	10061-01-5	CIS-1,3-DICHLOROPROPENE	2348	UG/L	1.0		500.00
97320	CLOUD_COVER	CLOUD COVER	2234	%			
06402	CO2_DIS	CO2 DISSOLVED	140	MG/L			5000
27101	CO_DIS	COBALT DISSOLVED	479	MG/L	.01		1000
27102	CO_DIS	COBALT DISSOLVED	1183	MG/L	.001		1000
27107	CO_DIS	COBALT DISSOLVED	1232	MG/L			1000
27109	CO_DIS	COBALT DISSOLVED	1502	MG/L	.001		1000
27111	CO_DIS	COBALT DISSOLVED	1516	UG/L	2		1000
27311	CO_EXTR	COBALT EXTRACTABLE	1502	MG/L	.001		
27321	CO_EXTR	COBALT EXTRACTABLE	1526	UG/L	1		
27401	CO_EXTR	COBALT EXTRACTABLE	82	MG/KG			100000
27601	CO_EXTR	COBALT EXTRACTABLE	1529	MG/KG			
27201	CO_EXTR	COBALT EXTRACTABLE	479	MG/L	.01		5000
27202	CO_EXTR	COBALT EXTRACTABLE	1183	MG/L	.001		5000
27211	CO_EXTR	COBALT EXTRACTABLE	1519	UG/L	2		5000
27301	CO_EXTR	COBALT EXTRACTABLE	479	MG/L	.01		5000
27302	CO_EXTR	COBALT EXTRACTABLE	1183	MG/L	.001		5000
27303	CO_EXTR	COBALT EXTRACTABLE	1240	MG/L			10000
27309	CO_EXTR	COBALT EXTRACTABLE	481	MG/L	.0005		
27430	CO_EXTR	COBALT EXTRACTABLE	2346	MG/KG	0.02		
27054	CO_NON-RES	COBALT NON-RES	487	MG/KG	0.1		5000
27001	CO_TOT	COBALT TOTAL	479	MG/L	.01		1000
27002	CO_TOT	COBALT TOTAL	1183	MG/L	.001		1000
27003	CO_TOT	COBALT TOTAL	481	MG/L			1000
27004	CO_TOT	COBALT TOTAL	1183	MG/L			1000
27009	CO_TOT	COBALT TOTAL	1502	MG/L	.002		1000
27011	CO_TOT	COBALT TOTAL	1503	UG/L	2		1000
27012	CO_TOT	COBALT TOTAL	441	UG/L	0.05		
27050	CO_TOT	COBALT TOTAL	58	MG/KG	10.0		
27051	CO_TOT	COBALT TOTAL	1226	MG/KG	2.0		1000
27052	CO_TOT	COBALT TOTAL	1508	MG/KG	50.0		
27053	CO_TOT	COBALT TOTAL	486	MG/KG	1		50000
27360	CO_TOT	COBALT TOTAL	1520	MG/L	0.008		2.500
27020	CO_TOT_REC	COBALT TOTAL RECOVERABLE	1224	MG/L	.002		
36010	COLIFORMS_FECAL	COLIFORMS FECAL	1414	NO/ML			
36011	COLIFORMS_FECAL	COLIFORMS FECAL	1409	NO/DL			999999
36012	COLIFORMS_FECAL	COLIFORMS FECAL	1410	NO/DL			999999
36013	COLIFORMS_FECAL	COLIFORMS FECAL	1417	NO/DL			999999
36014	COLIFORMS_FECAL	COLIFORMS FECAL	1418	NO/DL			
36015	COLIFORMS_FECAL	COLIFORMS FECAL	2336	NO	0		200000
36000	COLIFORMS_TOT	COLIFORMS TOTAL	1408	NO/ML			999999
36001	COLIFORMS_TOT	COLIFORMS TOTAL	1409	NO/DL			999999
36002	COLIFORMS_TOT	COLIFORMS TOTAL	1410	NO/DL			999999
36004	COLIFORMS_TOT	COLIFORMS TOTAL	1412	NO/ML			999999
36005	COLIFORMS_TOT	COLIFORMS TOTAL	1413	NO/DL			
98021	COLLECT_METH	COLLECTION METHOD	2262	DESCR CODE			
02023	COLOR	COLOUR	25	REL UNITS			
97072	COLOR_SED	COLOUR (BASIC) OF SEDIMENT	2186	DESCR CODE			9
97071	COLOR_SITE	COLOUR (VISUAL) AT SITE	2356	DESCR CODE			
97070	COLOR_SMPL	COLOUR (VISUAL) IN SAMPLE	2184	DESCR CODE			
02011	COLOR_APP	COLOUR APPARENT	24	REL UNITS			1001
02017	COLOR_APP	COLOUR APPARENT	24	REL UNITS			500
02015	COLOR_APP	COLOUR APPARENT	2330	REL UNITS	1		1000
02018	COLOR_APP_ALPHA	COLOUR APPARENT ALPHA	2357	REL UNITS			
97073	COLOR_MODIF	COLOUR MODIFIER	2187	DESCR CODE			9
02021	COLOR_TRUE	COLOUR TRUE	24	REL UNITS			500
02021	COLOR_TRUE	COLOUR TRUE	25	REL UNITS			
02024	COLOR_TRUE	COLOUR TRUE	27	REL UNITS			
02027	COLOR_TRUE_HAZEN	COLOUR TRUE HAZEN	28	HZN UNITS			1000
02025	COLOR_TRUE_HAZEN	COLOUR TRUE HAZEN	28	HZN UNITS			3000
02026	COLOR_TRUE_TRANS	COLOUR TRUE TRANSMIT.	29	% T			500
97354	COMP_SMPL	COMPOSITE SAMPLE	2240	DESCR CODE			
97290	CONC_SUS_SED	CONCENTRATION SUSPENDED SEDIMENT	2225	MG/L			
97902	COND-SAMPLING	CONDITION OF SAMPLING	2337	DESCR CODE	1		1099
97903	COND-SAMPLING	CONDITION OF SAMPLING	2338	DESCR CODE	1		999999
02045	CONDUCT_THEO	CONDUCTIVITY THEORETICAL	34	USIE/CM			
02047	CONDUCT_THEO_CALC	CONDUCTIVITY THEORETICAL (CALCD.)	2355	USIE/CM			
02046	CONDUCT_THEO_ERR	CONDUCTIVITY THEORETICAL ERROR	34	%			
02048	CONDUCT_THEO_ERR_CAL	CONDUCTIVITY THEORETICAL ERROR (CALCD.)	2355	%			
99017	SED_CONSISTENCY	CONSISTENCY OF SEDIMENT	2282	DESCR CODE			9
29101	CU_DIS	COPPER DISSOLVED	1295	MG/L			100000
29102	CU_DIS	COPPER DISSOLVED	1296	MG/L			50000
29104	CU_DIS	COPPER DISSOLVED	1295	MG/L	.01		500000
29105	CU_DIS	COPPER DISSOLVED	1183	MG/L	.001		30000
29106	CU_DIS	COPPER DISSOLVED	479	MG/L	.01		30000
29107	CU_DIS	COPPER DISSOLVED	481	MG/L			50000
29108	CU_DIS	COPPER DISSOLVED	1183	MG/L	.001		30000

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VARIABLE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
29109	CU_DIS	COPPER DISSOLVED	1502	MG/L	.001		
29111	CU_DIS	COPPER DISSOLVED	1516	UG/L	1		50000
29205	CU_EXTR	COPPER EXTRACTABLE	1183	MG/L	.001		30000
29206	CU_EXTR	COPPER EXTRACTABLE	479	MG/L	.01		30000
29211	CU_EXTR	COPPER EXTRACTABLE	1519	UG/L	1		50000
29301	CU_EXTR	COPPER EXTRACTABLE	1295	MG/L			10000
29302	CU_EXTR	COPPER EXTRACTABLE	1170	MG/L			30000
29303	CU_EXTR	COPPER EXTRACTABLE	1309	MG/L	.01		100000
29304	CU_EXTR	COPPER EXTRACTABLE	1295	MG/L	.01		100000
29305	CU_EXTR	COPPER EXTRACTABLE	1183	MG/L	.001		30000
29306	CU_EXTR	COPPER EXTRACTABLE	479	MG/L	.01		30000
29307	CU_EXTR	COPPER EXTRACTABLE	479	MG/L	.001		3000
29308	CU_EXTR	COPPER EXTRACTABLE	1314	MG/L			10000
29309	CU_EXTR	COPPER EXTRACTABLE	504	MG/L	.0005		1000
29311	CU_EXTR	COPPER EXTRACTABLE	1502	MG/L	.001		
29321	CU_EXTR	COPPER EXTRACTABLE	1526	UG/L	1		5000
29401	CU_EXTR	COPPER EXTRACTABLE	1277	MG/KG			2000
29402	CU_EXTR	COPPER EXTRACTABLE	82	MG/KG			1400
29601	CU_EXTR	COPPER EXTRACTABLE	1529	MG/KG	0.2		100
29312	CU_EXTR	COPPER EXTRACTABLE	2322	MG/L	0.01		32.0
29430	CU_EXTR	COPPER EXTRACTABLE	2346	MG/KG	0.02		
29054	CU_NON-RES	COPPER NON-RES	487	MG/KG	0.1		5000
29001	CU_TOT	COPPER TOTAL	458	MG/L			
29003	CU_TOT	COPPER TOTAL	481	MG/L			
29005	CU_TOT	COPPER TOTAL	1183	MG/L	.001		10000
29006	CU_TOT	COPPER TOTAL	479	MG/L	.01		10000
29007	CU_TOT	COPPER TOTAL	479	MG/L	.002		1000
29009	CU_TOT	COPPER TOTAL	1502	MG/L	.001		
29010	CU_TOT	COPPER TOTAL	1183	MG/L	.001		10000
29011	CU_TOT	COPPER TOTAL	1503	UG/L	1		50000
29012	CU_TOT	COPPER TOTAL	441	UG/L	0.02		
29050	CU_TOT	COPPER TOTAL	58	MG/KG	10		
29051	CU_TOT	COPPER TOTAL	1226	MG/KG	2.0		1000
29052	CU_TOT	COPPER TOTAL	1508	MG/KG	30		
29053	CU_TOT	COPPER TOTAL	486	MG/KG	1		50000
29501	CU_TOT	COPPER TOTAL	1520	MG/L	0.01		2.500
29020	CU_TOT_REC	COPPER TOTAL RECOVERABLE	1224	MG/L	.001		
96571	360-68-9	COPROSTANOL	2081	UG/G	0.05		
06810	360-68-9	COPROSTANOL	208	UG/L	0.05		50
18200	56-72-4	COUMAPHOS	786	UG/L			5000000
94001	299-86-5	CRUFOMATE	1781	UG/L	.2		200000
16230	299-86-5	CRUFOMATE	847	UG/L			5000000
96124	299-86-5	CRUFOMATE	2341	NG/L	0.5		
94025	21725-46-2	CYANAZINE	1781	UG/L	.6		200000
18505	21725-46-2	CYANAZINE	2349	UG/L	0.2		
18440	CYAN-100	CYANAZINE TOTAL	786	UG/L	.1		10000
06601	CN	CYANIDE	184	MG/L	.001		10000
06606	CN	CYANIDE	187	MG/L	.0005		10000
06608	CN	CYANIDE	187	MG/L	.002		10000
06604	CN_TOT	CYANIDE TOTAL	185	MG/L	.001		10000
06605	CN_TOT	CYANIDE TOTAL	186	MG/L	.03		10000
06607	CN_TOT	CYANIDE TOTAL	185	MG/L			10000
06610	CN_TOT	CYANIDE TOTAL	2318	MG/L	0.001		
18120	97-11-0	CYCLETHERIN	786	UG/L			900000
06515	CYCLODIENS	CYCLODIENES	718	UG/L	0.1		500
06516	CYCLODIENS_TOT	CYCLODIENES TOTAL (CALCD.)	147	UG/L			
18430	22936-86-3	CYPRAZINE TOTAL	786	UG/L	.1		10000
93004	1861-31-1	DACTHAL	1730	UG/L	.01		100000
18390	75-99-0	DALAPON	886	UG/L	.05		10000
18002	50-29-3_TOT	DDT TOTAL	718	UG/L	.001		10
18014	50-29-3_TOT	DDT TOTAL	2311	MG/KG			0.4
18019	50-29-3_TOT_CALC	DDT TOTAL (CALCD.)	733	UG/L			
18003	50-29-3_TOT_CALC	DDT TOTAL (CALCD.)	721	UG/L			
94004	78-48-8	DEF	1781	UG/L	.3		200000
96544	319-86-8	DELTA-BENZENEHEXACHLORIDE	2059	UG/L	0.6		
96254	319-86-8	DELTA-BENZENEHEXACHLORIDE	2003	UG/L	0.6		
96234	319-86-8	DELTA-BENZENEHEXACHLORIDE	1997	UG/L	0.6		
93023	319-86-8	DELTA-BENZENEHEXACHLORIDE	1730	UG/L	.01		100000
18073	319-86-8	DELTA-BENZENEHEXACHLORIDE	718	UG/L	.001		10000
95243	319-86-8	DELTA-BENZENEHEXACHLORIDE	2301	UG/L	0.01		
94005	298-03-3	DEMETON	1781	UG/L	.3		200000
97261	DEPTH_SMPL_BOTTOM	DEPTH OF SAMPLING FROM BOTTOM	2216	M			10000
97251	DEPTH_SMPL_SURF	DEPTH OF SAMPLING FROM SURFACE	2214	M			10000
97252	DEPTH_SMPL_SURF	DEPTH OF SAMPLING FROM SURFACE	2215	FT			1000
95309	84-69-5	DI-ISOBUTYL PHTHALATE	1930	UG/L	1		500000
95312	84-74-2	DI-N-BUTYL PHTHALATE	1930	UG/L	1		500000
18962	84-74-2	DI-N-BUTYL PHTHALATE	1024	NG/L			

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VARIABLE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
00303	84-74-2	DI-N-BUTYL PHTHALATE	2303	NG/G	368		
95051	84-74-2	DI-N-BUTYL PHTHALATE	2319	UG/L	20		
96148	84-74-2	DI-N-BUTYL PHTHALATE	2345	NG/L	0.29		
96515	117-84-0	DI-N-OCTYL PHTHALATE	2045	NG/G	141.0		
96206	117-84-0	DI-N-OCTYL PHTHALATE	1947	NG/L	0.150		
95313	117-84-0	DI-N-OCTYL PHTHALATE	1930	UG/L	1		500000
95054	117-84-0	DI-N-OCTYL PHTHALATE	2319	UG/L	1		500000
18965	117-84-0	DI-N-OCTYL PHTHALATE	1024	NG/L			
93011	2303-16-4	DIALLATE	1730	UG/L	.8		50000
18360	2303-16-4	DIALLATE	843	UG/L	.1		10000
96904	2303-16-4	DIALLATE	2339	NG/G	4.0		
96111	2303-16-4	DIALLATE	2344	NG/L	6.5		
95401	2303-16-4	DIALLATE	2366	NG/G	4		
94026	333-41-5	DIAZINON	1781	UG/L	.05		200000
18270	333-41-5	DIAZINON	847	UG/L			5000000
96118	333-41-5	DIAZINON	2341	NG/L	0.5		
18463	333-41-5	DIAZINON	2349	UG/L	0.01		5000.00
18925	53-70-3	DIBENZ(A,H)ANTHRACENE	982	UG/L	.0003		
18936	53-70-3	DIBENZ(A,H)ANTHRACENE	1007	MG/KG	.02		
00299	53-70-3	DIBENZ(A,H)ANTHRACENE	2303	NG/G	148		
95022	53-70-3	DIBENZ(A,H)ANTHRACENE	2319	UG/L	10		
96145	53-70-3	DIBENZ(A,H)ANTHRACENE	2345	NG/L	0.4		
95139	132-64-9	DIBENZOFURAN	2316	UG/L	0.1		
95209	124-48-1	DIBROMOCHLOROMETHANE	2321	UG/L	1		500000
95106	124-48-1	DIBROMOCHLOROMETHANE	1867	UG/L	1		500000
17407	124-48-1	DIBROMOCHLOROMETHANE	637	UG/L			1000000
17417	124-48-1	DIBROMOCHLOROMETHANE	637	MG/L			1000000
00006	124-48-1	DIBROMOCHLOROMETHANE	2348	UG/L	2.0		500.00
95210	74-95-3	DIBROMOMETHANE	2321	UG/L	1		500000
00063	74-95-3	DIBROMOMETHANE	2348	UG/L	350		500.00
93041	1918-00-9	DICAMBA	1766	UG/L	.2		500000
18530	1918-00-9	DICAMBA	938	UG/L	.03		500000
96941	1918-00-9	DICAMBA	2343	NG/L	0.3		
18295	97-17-6	DICHLOFENTHION TOTAL	719	UG/L	.1		10000
00059	3018-12-0	DICHLOROACETONITRILE	2348	UG/L	15.0		500.00
17405	75-27-4	DICHLOROBROMOMETHANE	637	UG/L			1000000
95201	75-27-4	DICHLOROBROMOMETHANE	2321	UG/L	1		500000
95101	75-27-4	DICHLOROBROMOMETHANE	1867	UG/L	.5		500000
17415	75-27-4	DICHLOROBROMOMETHANE	637	MG/L			1000000
00005	75-27-4	DICHLOROBROMOMETHANE	2348	UG/L	1.0		500.00
00008	75-43-4	DICHLOROFLUOROMETHANE	2348	UG/L	5.0		500.00
93044	120-36-5	DICHLORPROP	1766	UG/L	.2		500000
18555	120-36-5	DICHLORPROP	786	UG/L			500000
18515	120-36-5	DICHLORPROP	926	MG/KG	.004		100000
18516	120-36-5	DICHLORPROP	928	UG/L	.03		
96943	120-36-5	DICHLORPROP	2343	NG/L	0.3		
18473	120-36-5	DICHLORPROP	2349	UG/L	0.05		100.00
18556	57153-17-0	DICHLORPROP METHYL ESTER	786	UG/L			500000
94003	62-73-7	DICHLORVOS	1781	UG/L	.15		200000
18280	62-73-7	DICHLORVOS	786	UG/L			5000000
93040	51338-27-3	DICLOFOP METHYL	1766	UG/L	.2		500000
95253	51338-27-3	DICLOFOP METHYL	2300	UG/L	0.09		
18155	99-30-9	DICLORAN	718	UG/L	.1		10000
18476	99-30-9	DICLORAN	2349	UG/L	0.05		10.00
18100	115-32-2	DICOFOL	786	UG/L			900000
95254	115-32-2	DICOFOL	2301	UG/L	0.05		
95307	84-61-7	DICYCLOHEXYL PHTHALATE	1930	UG/L	1		500000
95418	60-57-1	DIELDRIN	2356	NG/G	4		
96820	60-57-1	DIELDRIN	2149	NG/G	3.2		
96760	60-57-1	DIELDRIN	2104	NG/G	5.0		
96018	60-57-1	DIELDRIN	1947	NG/L	0.180		
93012	60-57-1	DIELDRIN	1730	UG/L	.01		100000
18652	60-57-1	DIELDRIN	719	MG/KG			
18152	60-57-1	DIELDRIN	722	UG/L	.001		10000
18153	60-57-1	DIELDRIN	675	MG/KG	.001		10000
18154	60-57-1	DIELDRIN	673	NG/L	0.4		
18150	60-57-1	DIELDRIN	718	UG/L	.005		10000
18151	60-57-1	DIELDRIN	719	MG/KG			500000
95255	60-57-1	DIELDRIN	2301	UG/L	0.02		
96921	60-57-1	DIELDRIN	2339	NG/G	0.20		
18497	60-57-1	DIELDRIN	2349	UG/L	0.003		100.000
82637	PB(CH2CH3)2	DIETHYL LEAD	1663	UG/KG	15		30
82437	PB(CH2CH3)2	DIETHYL LEAD	1663	UG/KG	15000		5000
95308	84-66-2	DIETHYL PHTHALATE	1930	UG/L	1		500000
18961	84-66-2	DIETHYL PHTHALATE	1024	NG/L			
00302	84-66-2	DIETHYL PHTHALATE	2303	NG/G	1382		
95052	84-66-2	DIETHYL PHTHALATE	2319	UG/L	20		

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VARIABLE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
96147	84-66-2	DIETHYL PHTHALATE	2345	NG/L	0.31		
93200	49866-87-7	DIFENZOQUAT	1777	UG/L	2		200000
94006	60-51-5	DIMETHOATE	1781	UG/L	.25		200000
18340	60-51-5	DIMETHOATE	847	UG/L			5000000
96130	60-51-5	DIMETHOATE	2341	NG/L	0.3		
82654	PB(CH3)2(CH2CH3)2	DIMETHYL DIETHYL LEAD	1667	UG/KG	15		50
82454	PB(CH3)2(CH2CH3)2	DIMETHYL DIETHYL LEAD	1667	UG/KG	15000		5000
95310	1459-93-4	DIMETHYL ISOPHTHALATE	1930	UG/L	1		500000
82623	PB(CH3)2	DIMETHYL LEAD	1660	UG/KG	15		50
82423	PB(CH3)2	DIMETHYL LEAD	1660	UG/KG	15000		5000
95311	131-11-3	DIMETHYL PHTHALATE	1930	UG/L	1		500000
18960	131-11-3	DIMETHYL PHTHALATE	1024	NG/L			
00301	131-11-3	DIMETHYL PHTHALATE	2303	NG/G	204		
95053	131-11-3	DIMETHYL PHTHALATE	2319	UG/L	20		
96146	131-11-3	DIMETHYL PHTHALATE	2345	NG/L	0.3		
93033	2091-05-2	DINITRAMINE	1759	UG/L	1.25		200000
95314	84-76-4	DINONYL PHTHALATE	1930	UG/L	1		500000
93034	88-85-7	DINOSEB	1759	UG/L	1.25		200000
95306	131-18-0	DIPENTYL PHTHALATE	1930	UG/L	1		500000
95315	84-62-8	DIPHENYL PHTHALATE	1930	UG/L	1		500000
93220	2764-72-9	DIQUAT	1778	UG/L	50		500000
18710	2764-72-9	DIQUAT	786	UG/L			5000000
97163	DISCHARGE_DAY_MEAN	DISCHARGE DAILY MEAN	2194	CFS			999999
97166	DISCHARGE_DAY_MEAN	DISCHARGE DAILY MEAN	2194	CFS			999999
97167	DISCHARGE_DAY_MEAN	DISCHARGE DAILY MEAN	2198	M3/S			9999.99
97168	DISCHARGE_DAY_MEAN	DISCHARGE DAILY MEAN	2199	DM3/S			
97165	DISCHARGE	DISCHARGE DAILY PER AREA	2196	L/HA/DAY			999999
97160	DISCHARGE_INSTANT	DISCHARGE INSTANT	2192	M3/S			9999.99
97161	DISCHARGE_INSTANT	DISCHARGE INSTANT	2193	CFS			9999.99
97164	DISCHARGE_INSTANT	DISCHARGE INSTANT	2193	CFS			9999.99
97184	DISCHARGE_MO_MEAN	DISCHARGE MONTHLY MEAN	2205	M3/S			9999.99
97183	DISCHARGE_MO_MEAN	DISCHARGE MONTHLY MEAN	2204	CFS			999999
97181	DISCHARGE_MO_MEAN_PR	DISCHARGE MONTHLY MEAN PROVISION	2203	CFS			999999
97190	DISCHARGE_TILE_DRAIN	DISCHARGE TILE DRAINAGE	2206	L/S			9999.99
97010	DIST_REF_STN	DISTANCE FROM REF. STATION (DOWNSTREAM)	2178	MI			10000
97011	DIST_REF_STN	DISTANCE FROM REF. STATION (DOWNSTREAM)	2176	KM			20000
94007	298-04-4	DISULFOTON	1781	UG/L	.15		100000
18215	298-04-4	DISULFOTON	718	UG/L	.1		100000
96119	298-04-4	DISULFOTON	2341	NG/L	0.5		
95101	330-54-1	DIURON	1966	UG/L	1		500000
02431	EH	EH	57	MV			500
97373	EMPTY_BAG_WEIGHT	EMPTY WEIGHT AT LABORATORY	2253	G			
18052	115-29-7	ENDOSULFAN SULPHATE TOTAL	718	UG/L	.1		10000
95419	72-20-8	ENDRIN	2366	NG/G	4		
96821	72-20-8	ENDRIN	2149	NG/G	2.9		
96761	72-20-8	ENDRIN	2104	NG/G	5.0		
96017	72-20-8	ENDRIN	1947	NG/L	0.140		
93016	72-20-8	ENDRIN	1730	UG/L	.01		200000
18642	72-20-8	ENDRIN	719	MG/KG			
18140	72-20-8	ENDRIN	718	UG/L	.01		10000
18141	72-20-8	ENDRIN	719	MG/KG	.01		500000
18142	72-20-8	ENDRIN	722	UG/L	.001		10000
18143	72-20-8	ENDRIN	675	MG/KG	.001		10000
18144	72-20-8	ENDRIN	673	NG/L	0.4		
95258	72-20-8	ENDRIN	2301	UG/L	0.02		
96922	72-20-8	ENDRIN	2339	NG/G	0.25		
96923	72-20-8	ENDRIN	2339	NG/G	0.65		
18498	72-20-8	ENDRIN	2349	UG/L	0.004		10.0000
00297	7421-93-4	ENDRIN ALDEHYDE	2302	NG/G	4.2		
96152	7421-93-4	ENDRIN ALDEHYDE	2342	NG/L	0.13		
96545	ORCIN-100	ENDRIN KETONE	2059	UG/L	0.7		
96255	ORCIN-100	ENDRIN KETONE	2003	UG/L	0.7		
96235	ORCIN-100	ENDRIN KETONE	1997	UG/L	0.7		
94008	563-12-2	ETHION	1781	UG/L	.1		200000
18310	563-12-2	ETHION	847	UG/L			5000000
96125	563-12-2	ETHION	2341	NG/L	0.5		
94017	13194-48-4	ETHODROPHOS	1781	UG/L	.15		200000
95117	100-41-4	ETHYL BENZENE	1867	UG/L	.1		500000
95221	100-41-4	ETHYL BENZENE	2321	UG/L	1		
00036	100-41-4	ETHYL BENZENE	2348	UG/L	0.5		500.00
99513	100-41-4	ETHYL BENZENE	2352	UG/KG	10		
18080	72-56-01	ETHYLAN	786	UG/L			900000
26401	FE2O3	FE2O3	457	%			15
36103	FECAL_STREP	FECAL STREPTOCOCCI	1421	NO/DL			999999
36105	FECAL_STREP	FECAL STREPTOCOCCI	1421	NO/DL			
36110	FECAL_STREP	FECAL STREPTOCOCCI	1414	NO/ML			
36101	FECAL_STREP	FECAL STREPTOCOCCI	1409	NO/DL			999999

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VARIABLE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
36102	FECAL_STREP	FECAL STREPTOCOCCI	1410	NO/DL			999999
94021	299-84-3	FENCHLORPHOS	1781	UG/L	.15		200000
18260	299-84-3	FENCHLORPHOS	847	UG/L			5000000
96120	299-84-3	FENCHLORPHOS	2341	NG/L	0.5		
94010	122-14-5	FENITROTHION	1781	UG/L	.15		200000
18330	122-14-5	FENITROTHION	847	UG/L			500000
18331	122-14-5	FENITROTHION	873	UG/L	.01		
96132	122-14-5	FENITROTHION	2341	NG/L	0.3		
18466	122-14-5	FENITROTHION	2349	UG/L	0.05		500.00
93042	93-72-1	FENOPROP	1766	UG/L	.3		500000
18540	93-72-1	FENOPROP	786	UG/L			500000
18541	93-72-1	FENOPROP	928	UG/L	.03		
18542	93-72-1	FENOPROP	926	MG/KG	.004		100
96947	93-72-1	FENOPROP	2343	NG/L	0.3		
94002	115-90-2	FENSULFOTHION	1781	UG/L	.5		100000
18285	FENS-100	FENSULFOTHION TOTAL	718	UG/L	.1		10000
94009	55-38-9	FENTHION	1781	UG/L	.15		200000
18220	55-38-9	FENTHION	786	UG/L			5000000
54101	ALGAL_GROWTH_POT_FIL	FILTERED ALGAL GROWTH POTENTIAL	1559	CELLS/ML			
54110	ALGAL_GROWTH_POT_FIL	FILTERED ALGAL GROWTH POTENTIAL	1558	MG/L DR WT			
99503	FISH_AGE	FISH AGE	2296	YR			
99504	FISH_INORG_SMPLWT	FISH INORGANIC SAMPLE WEIGHT	2297	G			
99501	FISH_LEN	FISH LENGTH	2294	CM			
99505	FISH_ORG_SMPLWT	FISH ORGANIC SAMPLE WEIGHT	2298	G			
99506	FISH_%FAT	FISH PERCENTAGE FAT	2299	%			
99502	FISH_WT	FISH WEIGHT	2295	G			
98041	FLOAT_MATL_SITE	FLOATING MATERIAL AT SITE	2269	DESCR CODE			
98040	FLOAT_MATL_SMPL	FLOATING MATERIAL IN SAMPLE	2269	DESCR CODE			
96790	205-44-0	FLUORANTHENE	2131	NG/G	15.0		
96560	205-44-0	FLUORANTHENE	2065	NG/G	15.0		
95510	206-44-0	FLUORANTHENE	2045	NG/G	195.0		
96220	206-44-0	FLUORANTHENE	1981	NG/L	15		
96201	206-44-0	FLUORANTHENE	1947	NG/L	0.350		
18980	206-44-0	FLUORANTHENE	847	NG/L	50		
18958	206-44-0	FLUORANTHENE	918	MG/KG			
18904	206-44-0	FLUORANTHENE	982	UG/L	.0003		
18914	206-44-0	FLUORANTHENE	991	NG/KG	.001		
95023	206-44-0	FLUORANTHENE	2319	UG/L	10		
96787	86-73-7	FLUORENE	2131	NG/G	15.0		
96557	86-73-7	FLUORENE	2065	NG/G	15.0		
96277	86-73-7	FLUORENE	2015	NG/L	0.40		
96217	86-73-7	FLUORENE	1981	NG/L	15		
18978	86-73-7	FLUORENE	1038	NG/L	50		
18921	86-73-7	FLUORENE	982	UG/L	.0015		
18931	86-73-7	FLUORENE	1007	MG/KG	.01		
00295	86-73-7	FLUORENE	2303	NG/G	160		
95134	86-73-7	FLUORENE	2316	UG/L	0.1		
95024	86-73-7	FLUORENE	2319	UG/L	10		
06540	FLUORESCEIN_DYE	FLUORESCEIN DYE	161	MG/L	.001		500
09116	F	FLUORIDE	362	MG/L	0.5		10
09117	F_DIS	FLUORIDE DISSOLVED	361	MG/L			10
09101	F_DIS	FLUORIDE DISSOLVED	352	MG/L	0.10		10
09102	F_DIS	FLUORIDE DISSOLVED	353	MG/L	0.10		10
09103	F_DIS	FLUORIDE DISSOLVED	354	MG/L	0.10		10
09104	F_DIS	FLUORIDE DISSOLVED	355	MG/L	0.01		10
09105	F_DIS	FLUORIDE DISSOLVED	356	MG/L	0.05		10
09106	F_DIS	FLUORIDE DISSOLVED	356	MG/L	0.01		10
09107	F_DIS	FLUORIDE DISSOLVED	358	MG/L	0.02		10
09108	F_DIS	FLUORIDE DISSOLVED	358	MG/L			10
09110	F_DIS	FLUORIDE DISSOLVED	360	MG/L			10
09118	F_DIS	FLUORIDE DISSOLVED	2354	MG/L	0.01		
94011	944-22-9	FONOFOS	1781	UG/L	.05		200000
18504	944-22-9	FONOFOS	2349	UG/L	0.05		
06590	HCHO_TOT	FORMALDEHYDE TOTAL	183	MG/L			50000
06401	CO2_FREE	FREE CO2 (CALCD.)	139	MG/L			
06538	FULVIC_ACID_DIS	FULVIC ACIDS DISSOLVED	177	MG/L			10000000
06587	FULVIC_ACID_TOT	FULVIC ACIDS TOTAL	177	MG/L			10000000
06589	FULVIC_ACID_TOT	FULVIC ACIDS TOTAL	179	MG/L	1		1000000
96812	58-89-9	GAMMA-BENZENEHEXACHLORIDE	2149	NG/G	2.9		
96752	58-89-9	GAMMA-BENZENEHEXACHLORIDE	2104	NG/G	5.0		
96013	58-89-9	GAMMA-BENZENEHEXACHLORIDE	1947	NG/L	0.400		
93022	58-89-9	GAMMA-BENZENEHEXACHLORIDE	1730	UG/L	.01		100000
18671	58-89-9	GAMMA-BENZENEHEXACHLORIDE	719	MG/KG			
18079	58-89-9	GAMMA-BENZENEHEXACHLORIDE	675	MG/KG	.001		10000
18083	58-89-9	GAMMA-BENZENEHEXACHLORIDE	673	NG/L	0.4		
18070	58-89-9	GAMMA-BENZENEHEXACHLORIDE	718	UG/L	.001		100000
18071	58-89-9	GAMMA-BENZENEHEXACHLORIDE	719	MG/KG			500000

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VARIABLE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
18072	58-89-9	GAMMA-BENZENEHEXACHLORIDE	722	UG/L	.001		10000
95244	58-89-9	GAMMA-BENZENEHEXACHLORIDE	2301	UG/L	0.02		
96913	58-89-9	GAMMA-BENZENEHEXACHLORIDE	2339	NG/G	0.40		
18486	58-89-9	GAMMA-BENZENEHEXACHLORIDE	2349	UG/L	0.001		100.000
95410	58-89-9	GAMMA-BENZENEHEXACHLORIDE	2366	NG/G	4		
96816	5103-74-2	GAMMA-CHLORDANE	2149	NG/G	1.5		
96756	5103-74-2	GAMMA-CHLORDANE	2104	NG/G	5.0		
96012	5103-74-2	GAMMA-CHLORDANE	1947	NG/L	0.040		
93002	5103-74-2	GAMMA-CHLORDANE	1730	UG/L	.005		100000
18666	5103-74-2	GAMMA-CHLORDANE	719	MG/KG			
18064	5103-74-2	GAMMA-CHLORDANE	673	NG/L	0.4		
18065	5103-74-2	GAMMA-CHLORDANE	718	UG/L	.005		100000
18066	5103-74-2	GAMMA-CHLORDANE	719	MG/KG	.005		500000
18067	5103-74-2	GAMMA-CHLORDANE	722	UG/L	.001		10000
18068	5103-74-2	GAMMA-CHLORDANE	675	MG/KG	.001		10000
95246	5103-74-2	GAMMA-CHLORDANE	2301	UG/L	0.01		
96917	5103-74-2	GAMMA-CHLORDANE	2339	NG/G	0.20		
18490	5103-74-2	GAMMA-CHLORDANE	2349	UG/L	0.001		100.000
95414	5103-74-2	GAMMA-CHLORDANE	2366	NG/G	4		
10811	HALIDES_TOT	HALIDES TOTAL	437	MG/L			5000
10550	HARD_NON-CARB_CALC	HARDNESS NON-CARB. (CALCD.)	428	MG/L			5000
10601	HARD_TOT_CACO3_CALC	HARDNESS TOTAL (CALCD.) CACO3	422	MG/L			10000
10602	HARD_TOT_CACO3_CALC	HARDNESS TOTAL (CALCD.) CACO3	423	MG/L			10000
10603	HARD_TOT_CACO3	HARDNESS TOTAL CACO3	424	MG/L	1		10000
10604	HARD_TOT_CACO3	HARDNESS TOTAL CACO3	425	MG/L			10000
10605	HARD_TOT_CACO3	HARDNESS TOTAL CACO3	424	MG/L			10000
10606	HARD_TOT_CACO3_CAL_L	HARDNESS TOTAL LAB (CALCD.) CACO3	422	MG/L			10000
96813	76-44-8	HEPTACHLOR	2149	NG/G	1.4		
96753	76-44-8	HEPTACHLOR	2104	NG/G	5.0		
96007	76-44-8	HEPTACHLOR	1947	NG/L	0.110		
93017	76-44-8	HEPTACHLOR	1730	UG/L	.01		100000
18641	76-44-8	HEPTACHLOR	719	MG/KG			
18039	76-44-8	HEPTACHLOR	673	NG/L	0.4		
18040	76-44-8	HEPTACHLOR	718	UG/L	.001		100000
18041	76-44-8	HEPTACHLOR	719	MG/KG			500000
18042	76-44-8	HEPTACHLOR	722	UG/L	.001		10000
18043	76-44-8	HEPTACHLOR	675	MG/KG	.001		10000
95259	76-44-8	HEPTACHLOR	2301	UG/L	0.02		
96914	76-44-8	HEPTACHLOR	2339	NG/G	0.40		
18481	76-44-8	HEPTACHLOR	2349	UG/L	0.002		100.000
95411	76-44-8	HEPTACHLOR	2366	NG/G	4		
96815	1024-57-3	HEPTACHLOR EPOXIDE	2149	NG/G	1.9		
96755	1024-57-3	HEPTACHLOR EPOXIDE	2104	NG/G	5.0		
96008	1024-57-3	HEPTACHLOR EPOXIDE	1947	NG/L	0.060		
93018	1024-57-3	HEPTACHLOR EPOXIDE	1730	UG/L	.01		100000
18646	1024-57-3	HEPTACHLOR EPOXIDE	719	MG/KG			
18044	1024-57-3	HEPTACHLOR EPOXIDE	673	NG/L	0.4		
18045	1024-57-3	HEPTACHLOR EPOXIDE	718	UG/L	.001		100000
18046	1024-57-3	HEPTACHLOR EPOXIDE	719	MG/KG			500000
18047	1024-57-3	HEPTACHLOR EPOXIDE	722	UG/L	.001		10000
18048	1024-57-3	HEPTACHLOR EPOXIDE	675	MG/KG	.001		10000
95250	1024-57-3	HEPTACHLOR EPOXIDE	2301	UG/L	0.01		
96916	1024-57-3	HEPTACHLOR EPOXIDE	2339	NG/G	0.10		
18488	1024-57-3	HEPTACHLOR EPOXIDE	2349	UG/L	0.001		100.000
95413	1024-57-3	HEPTACHLOR EPOXIDE	2366	NG/G	4		
18049	1024-57-3_CALC	HEPTACHLOR EPOXIDE (CALCD.)	760	UG/L			
96810	118-74-1	HEXACHLOROBENZENE	2149	NG/G	6.3		
96750	118-74-1	HEXACHLOROBENZENE	2104	NG/G	5.0		
96001	118-74-1	HEXACHLOROBENZENE	1947	NG/L	0.070		
95033	118-74-1	HEXACHLOROBENZENE	2319	UG/L	1		500000
93019	118-74-1	HEXACHLOROBENZENE	1730	UG/L	.005		100000
17809	118-74-1	HEXACHLOROBENZENE	668	MG/KG	.004		
17810	118-74-1	HEXACHLOROBENZENE	722	UG/L	.001		10000
17811	118-74-1	HEXACHLOROBENZENE	718	UG/L	.001		10000
17812	118-74-1	HEXACHLOROBENZENE	677	UG/L	.002		10000
17813	118-74-1	HEXACHLOROBENZENE	672	NG/L			
17814	118-74-1	HEXACHLOROBENZENE	673	NG/L	0.4		
17815	118-74-1	HEXACHLOROBENZENE	719	MG/KG	.001		500000
17816	118-74-1	HEXACHLOROBENZENE	675	MG/KG	.001		10000
17817	118-74-1	HEXACHLOROBENZENE	681	MG/KG	.0006		
96911	118-74-1	HEXACHLOROBENZENE	2339	NG/G	20		
18480	118-74-1	HEXACHLOROBENZENE	2349	UG/L	0.002		500.000
95408	118-74-1	HEXACHLOROBENZENE	2366	NG/G	4		
96800	87-68-3	HEXACHLOROBUTADIENE	2147	NG/G	4.2		
96261	87-68-3	HEXACHLOROBUTADIENE	2009	NG/L	0.05		
95034	87-68-3	HEXACHLOROBUTADIENE	2319	UG/L	5		500000
00061	87-68-3	HEXACHLOROBUTADIENE	2348	UG/L	1.0		500.00

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VARIABLE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
95035	77-47-4	HEXACHLOROCYCLOPENTADIENE	2319	UG/L	1		500000
00288	77-47-4	HEXACHLOROCYCLOPENTADIENE	2302	NG/G	1.8		
96153	77-47-4	HEXACHLOROCYCLOPENTADIENE	2342	NG/L	0.04		
95036	67-72-1	HEXACHLOROETHANE	2319	UG/L	5		500000
00020	67-72-1	HEXACHLOROETHANE	2348	UG/L	1.0		500.00
95007	57-10-3	HEXADECANOIC ACID	2319	UG/L	3		500000
93100	51235-04-2	HEXAZINONE	1774	UG/L	.1		200000
95177	51235-04-2	HEXAZINONE	2300	UG/L	5.0		
18366	40843-25-2	HOEGRASS	882	UG/L	.05		
96908	40843-25-2	HOEGRASS	2339	NG/G	1.50		
96115	40843-25-2	HOEGRASS	2344	NG/L	3.4		
95405	40843-25-2	HOEGRASS	2366	NG/G	4		
06581	HUMIC_ACID	HUMIC ACID	175	MG/L	1		10000000
06582	HUMIC_ACID	HUMIC ACID	175	MG/L	1		10000000
C6584	HUMIC_ACID_DIS	HUMIC ACIDS DISSOLVED	177	MG/L			10000000
06583	HUMIC_ACID_TOT	HUMIC ACIDS TOTAL	177	MG/L	1		10000000
06585	HUMIC_ACID_TOT	HUMIC ACIDS TOTAL	179	MG/L	1		10000000
06578	BUNKER_OIL	HYDROCARBONS BUNKER OIL	167	MG/L	1		10000000
06575	DIESEL_OIL	HYDROCARBONS DIESEL OIL	167	MG/L	1		10000000
06577	FURNACE_OIL	HYDROCARBONS FURNACE OIL	167	MG/L	1		10000000
06571	GASOLINE_PREM	HYDROCARBONS GASOLINE (PREMIUM)	167	MG/L	1		10000000
06572	GASOLINE_REG	HYDROCARBONS GASOLINE (REGULAR)	167	MG/L	1		10000000
06574	JET_FUEL	HYDROCARBONS JET FUEL	167	MG/L	1		10000000
06573	KEROSENE	HYDROCARBONS KEROSENE	167	MG/L	1		10000000
06576	STOVE_OIL	HYDROCARBONS STOVE OIL	167	MG/L	1		10000000
01000	H2S	HYDROGEN SULFIDE H2S	18	MG/L			
08501	OH	HYDROXIDE (CALCD.)	351	MG/L			
97301	ICE_COVER	ICE COVER	2226	%			100
97305	ICE_THICK	ICE THICKNESS	2227	M			
96780	95-13-6	INDENE	2131	NG/G	10.0		
96550	95-13-6	INDENE	2065	NG/G	10.0		
96270	95-13-6	INDENE	2015	NG/L	0.40		
96226	95-13-6	INDENE	1981	NG/L	30		
18940	95-13-6	INDENE	918	MG/KG			
18970	95-13-6	INDENE	847	NG/L	50		
96794	193-39-5	INDENO(1,2,3-C,D)PYRENE	2131	NG/G	30.0		
96564	193-39-5	INDENO(1,2,3-C,D)PYRENE	2065	NG/G	30.0		
96279	193-39-5	INDENO(1,2,3-C,D)PYRENE	2015	NG/L	1.0		
96224	193-39-5	INDENO(1,2,3-C,D)PYRENE	1981	NG/L	30		
96225	193-39-5	INDENO(1,2,3-C,D)PYRENE	1981	NG/L	30		
18905	193-39-5	INDENO(1,2,3-C,D)PYRENE	982	UG/L	.0015		
18915	193-39-5	INDENO(1,2,3-C,D)PYRENE	991	MG/KG	.001		
00298	193-39-5	INDENO(1,2,3-C,D)PYRENE	2303	NG/G	161		
95025	193-39-5	INDENO(1,2,3-C,D)PYRENE	2319	UG/L	10		
95062	120-72-9	INDOLE	2219	UG/L	10		
53501	I_RADIATION	IODINE RADIATION I-131	1556	BQ/L			
00110	ION_BAL	IONIC BALANCE	1	%			
00111	ION_BAL_CALC	IONIC BALANCE (CALCD.)	2355	MEQ/L			
00100	ION_BAL_DIFF_CALC	IONIC BALANCE DIFFERENCE (CALCD.)	1	%			
00105	ION_BAL_ERR	IONIC BALANCE ERROR	1	%			
00106	ION_BAL_ERR_CALC	IONIC BALANCE ERROR (CALCD.)	1	%			
26601	FE	IRON	1529	MG/KG			100
26101	FE_DIS	IRON DISSOLVED	1193	MG/L	.01		1000
26102	FE_DIS	IRON DISSOLVED	1180	MG/L	.001		1000
26103	FE_DIS	IRON DISSOLVED	1195	MG/L			1000
26104	FE_DIS	IRON DISSOLVED	1196	MG/L	.05		1000
26105	FE_DIS	IRON DISSOLVED	1183	MG/L	.001		1000
26106	FE_DIS	IRON DISSOLVED	1198	MG/L			1000
26107	FE_DIS	IRON DISSOLVED	461	MG/L			1000
26109	FE_DIS	IRON DISSOLVED	1502	MG/L	.001		1000
26111	FE_DIS	IRON DISSOLVED	1516	UG/L	1		1000
26052	FE_EXTR	IRON EXTRACTABLE	1508	MG/KG	0.02		
26309	FE_EXTR	IRON EXTRACTABLE	504	MG/L	.0005		1000
26311	FE_EXTR	IRON EXTRACTABLE	1502	MG/L	.001		1000
26321	FE_EXTR	IRON EXTRACTABLE	1526	UG/L	1		1000
26204	FE_EXTR	IRON EXTRACTABLE	479	MG/L	.05		1000
26205	FE_EXTR	IRON EXTRACTABLE	1183	MG/L	.001		1000
26211	FE_EXTR	IRON EXTRACTABLE	1519	UG/L	2		1000
26301	FE_EXTR	IRON EXTRACTABLE	1193	MG/L	.01		1000
26302	FE_EXTR	IRON EXTRACTABLE	1180	MG/L	.001		1000
26303	FE_EXTR	IRON EXTRACTABLE	1170	MG/L			1000
26304	FE_EXTR	IRON EXTRACTABLE	479	MG/L	.02		1000
26305	FE_EXTR	IRON EXTRACTABLE	1183	MG/L	.001		1000
26306	FE_EXTR	IRON EXTRACTABLE	481	MG/L			1000
26307	FE_EXTR	IRON EXTRACTABLE	1211	MG/L			1000
26312	FE_EXTR	IRON EXTRACTABLE	2322	MG/L	0.02		32.0
99510	FE_EXTR	IRON EXTRACTABLE	2346	MG/KG	0.02		

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VARIABLE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
26054	FE_NON-RES	IRON NON-RES	487	MG/KG	0.5		1000
26004	FE_TOT	IRON TOTAL	479	MG/L	.05		1000
26005	FE_TOT	IRON TOTAL	1183	MG/L	.001		1000
26006	FE_TOT	IRON TOTAL	1184	MG/L	.01		1000
26007	FE_TOT	IRON TOTAL	1185	MG/L	.01		1000
26008	FE_TOT	IRON TOTAL	1186	MG/L			1000
26009	FE_TOT	IRON TOTAL	1502	MG/L	.002		1000
26011	FE_TOT	IRON TOTAL	1503	UG/L	2		1000
26012	FE_TOT	IRON TOTAL	441	UG/L	0.07		1000
26050	FE_TOT	IRON TOTAL	58	MG/KG	50.0		
26053	FE_TOT	IRON TOTAL	486	MG/KG	5.0		
26002	FE_TOT	IRON TOTAL	1180	MG/L	.001		20000
26003	FE_TOT	IRON TOTAL	1091	MG/L	.001		1000
26055	FE_TOT	IRON TOTAL	2315	MG/KG	0.5		300000
26330	FE_TOT	IRON TOTAL	1520	MG/L	0.10		2.500
95030	78-59-1	ISOPHORONE	2319	UG/L	1		500000
00040	98-82-8	ISOPROPYLBENZENE	2348	UG/L	0.2		500.00
19401	K2O	K2O	457	%			10
99039	KURTOSIS	KURTOSIS	2293	PHI UNITS			20
97270	LAKE_LAYER	LAKE LAYER	2218	DESCR CODE			
97272	LAYER_BOTTOM	LAYER BOTTOM DEPTH	2220	M			10000
97271	LAYER_TOP	LAYER TOP DEPTH	2219	M			10000
82607	PB_+4	LEAD ALKYL	1656	UG/KG	15		50
82407	PB_+4	LEAD ALKYL	1656	UG/KG	15.00		5000
82101	PB_DIS	LEAD DISSOLVED	479	MG/L	.05		20000
82102	PB_DIS	LEAD DISSOLVED	1641	MG/L			20000
82103	PB_DIS	LEAD DISSOLVED	1183	MG/L	.001		30000
82104	PB_DIS	LEAD DISSOLVED	481	MG/L			20000
82105	PB_DIS	LEAD DISSOLVED	1183	MG/L	.001		10000
82109	PB_DIS	LEAD DISSOLVED	1502	MG/L	.001		
82111	PB_DIS	LEAD DISSOLVED	1502	UG/L	10		50000
82321	PB_EXTR	LEAD EXTRACTABLE	1526	UG/L	5		1000
82323	PB_EXTR	LEAD EXTRACTABLE	1660	UG/L	0.1		30
82324	PB_EXTR	LEAD EXTRACTABLE	1661	UG/L	0.1		30
82325	PB_EXTR	LEAD EXTRACTABLE	1662	UG/L	0.1		30
82337	PB_EXTR	LEAD EXTRACTABLE	1663	UG/L	0.1		30
82338	PB_EXTR	LEAD EXTRACTABLE	1664	UG/L	0.1		30
82339	PB_EXTR	LEAD EXTRACTABLE	1665	UG/L	0.1		30
82353	PB_EXTR	LEAD EXTRACTABLE	1666	UG/L	0.1		30
82354	PB_EXTR	LEAD EXTRACTABLE	1667	UG/L	0.1		30
82355	PB_EXTR	LEAD EXTRACTABLE	1668	UG/L	0.1		
82401	PB_EXTR	LEAD EXTRACTABLE	1277	MG/KG			5000
82601	PB_EXTR	LEAD EXTRACTABLE	1684	MG/KG	0.1		100
82602	PB_EXTR	LEAD EXTRACTABLE	1530	MG/KG	0.25		
82201	PB_EXTR	LEAD EXTRACTABLE	479	MG/L	.05		20000
82202	PB_EXTR	LEAD EXTRACTABLE	1183	MG/L	.001		10000
82211	PB_EXTR	LEAD EXTRACTABLE	1519	UG/L	10		50000
82301	PB_EXTR	LEAD EXTRACTABLE	479	MG/L	.05		2000
82302	PB_EXTR	LEAD EXTRACTABLE	1183	MG/L	.001		20000
82303	PB_EXTR	LEAD EXTRACTABLE	1641	MG/L			20000
82304	PB_EXTR	LEAD EXTRACTABLE	1170	MG/L			10000
82305	PB_EXTR	LEAD EXTRACTABLE	481	MG/L			5000
82306	PB_EXTR	LEAD EXTRACTABLE	479	MG/L	.01		20000
82307	PB_EXTR	LEAD EXTRACTABLE	1536	UG/L	0.1		30
82309	PB_EXTR	LEAD EXTRACTABLE	504	MG/L	.0005		1000
82311	PB_EXTR	LEAD EXTRACTABLE	1502	MG/L	.001		
82310	PB_EXTR	LEAD EXTRACTABLE	2307	MG/L	0.005		0.050
82322	PB_EXTR	LEAD EXTRACTABLE	2322	MG/L	0.05		36.0
82330	PB_EXTR	LEAD EXTRACTABLE	2346	MG/KG	0.10		
82054	PB_NON-RES	LEAD NON-RES	487	MG/KG	0.5		20000
82612	PB_RAD	LEAD RADIATION PB-210	1682	BQ/G	0.0185		
82501	PB_RAD	LEAD RADIATION PB-210	1681	BQ/L			10
82510	PB_RAD	LEAD RADIATION PB-210	2365	BQ/L			99
82591	PB_RAD	LEAD RADIATION PB-210	1683	BQ/L			100
82502	PB_RAD_TOT	LEAD RADIATION TOTAL PB-210	1682	BQ/L	0.0185		
82402	PB_TOT	LEAD TOTAL	82	MG/KG			1000
82005	PB_TOT	LEAD TOTAL	1628	MG/L			
82007	PB_TOT	LEAD TOTAL	1629	MG/L	.001		10000
82008	PB_TOT	LEAD TOTAL	458	MG/L			
82009	PB_TOT	LEAD TOTAL	1502	MG/L	.01		
82011	PB_TOT	LEAD TOTAL	1516	UG/L	10		50000
82012	PB_TOT	LEAD TOTAL	441	UG/L			
82050	PB_TOT	LEAD TOTAL	58	MG/KG	50		
82051	PB_TOT	LEAD TOTAL	1226	MG/KG	2.0		1000
82052	PB_TOT	LEAD TOTAL	1508	MG/KG	50		
82053	PB_TOT	LEAD TOTAL	486	MG/KG	5		200000
82001	PB_TOT	LEAD TOTAL	479	MG/L	.05		20000

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VARIABLE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
82002	PB_TOT	LEAD TOTAL	1183	MG/L	.001		10000
82003	PB_TOT	LEAD TOTAL	479	MG/L	.002		2000
82004	PB_TOT	LEAD TOTAL	481	MG/L	0.005		0.050
82360	PB_TOT	LEAD TOTAL	1520	MG/L	0.05		2.500
82020	PB_TOT_REC	LEAD TOTAL RECOVERABLE	1224	MG/L	.004		
18275	21609-90-5	LEPTOPHOS TOTAL	718	UG/L	.1		10000
18800	112-56-1	LETHANE 384	786	UG/L			5000000
02079	LIGHT_INTENS	LIGHT INTENSITY	52	FT CANDLES			
02080	LIGHT_INTENS	LIGHT INTENSITY	53	VEC			
06561	LIGNO_SULPH	LIGNOSULPHONATES	166	MG/L	1		1000000
96102	330-55-2	LINURON	1966	UG/L	1		500000
00250	LIPIDS_TOT	LIPIDS TOTAL	2353	%	0.1		
03101	LI_DIS	LITHIUM DISSOLVED	58	MG/L	.005		2000
03102	LI_DIS	LITHIUM DISSOLVED	59	MG/L			2000
03109	LI_DIS	LITHIUM DISSOLVED	64	MG/L	.1		2000
03301	LI_EXTR	LITHIUM EXTRACTABLE	58	MG/L	.005		2000
03309	LI_EXTR	LITHIUM EXTRACTABLE	64	MG/L			2000
03311	LI_EXTR	LITHIUM EXTRACTABLE	1526	MG/L	.001		2000
03330	LI_EXTR	LITHIUM EXTRACTABLE	2346	MG/KG	0.02		
03001	LI_TOT	LITHIUM TOTAL	58	MG/L	.005		2000
03002	LI_TOT	LITHIUM TOTAL	59	MG/L			2000
03009	LI_TOT	LITHIUM TOTAL	64	MG/L			2000
03050	LI_TOT	LITHIUM TOTAL	58	MG/L	.005		
95234	1330-20-7	M- + P-XYLENE	2321	UG/L	1		500000
00039	1330-20-7	M- + P-XYLENE	2348	UG/L	0.5		500.00
95066	108-39-4	M-CRESOL	2319	UG/L	10		
95126	108-38-3	M-XYLENE	1867	UG/L	.1		500000
95077	108-38-3	M-XYLENE	2321	UG/L	1		
99515	108-38-3	M-XYLENE	2352	UG/KG	10		
12111	MG_DIS	MAGNESIUM DISSOLVED	1516	MG/L	0.002		2000
12115	MG_DIS	MAGNESIUM DISSOLVED	1502	MG/L	0.001		2000
12102	MG_DIS	MAGNESIUM DISSOLVED	459	MG/L	0.01		2000
12103	MG_DIS	MAGNESIUM DISSOLVED	465	MG/L	1		2000
12104	MG_DIS	MAGNESIUM DISSOLVED	466	MG/L			2000
12105	MG_DIS	MAGNESIUM DISSOLVED	459	MG/L	0.25		2000
12106	MG_DIS	MAGNESIUM DISSOLVED	459	MG/L			2000
12107	MG_DIS	MAGNESIUM DISSOLVED	469	MG/L			2000
12101	MG_DIS_CALC	MAGNESIUM DISSOLVED (CALCD.)	463	MG/L			2000
12302	MG_EXTR	MAGNESIUM EXTRACTABLE	459	MG/L	0.1		1000
12303	MG_EXTR	MAGNESIUM EXTRACTABLE	459	MG/L			1000
12311	MG_EXTR	MAGNESIUM EXTRACTABLE	455	MG/L	0.50		1000
12321	MG_EXTR	MAGNESIUM EXTRACTABLE	1526	UG/L	100		1000
12312	MG_EXTR	MAGNESIUM EXTRACTABLE	2322	MG/L	0.50		250
12330	MG_EXTR	MAGNESIUM EXTRACTABLE	2346	MG/KG	2.0		
12108	MG_HARD	MAGNESIUM HARDNESS	470	MG/L			2000
12451	MG_TOT	MAGNESIUM TOTAL	1728	MG/L	0.01		3000
12001	MG_TOT	MAGNESIUM TOTAL	458	MG/L			3000
12002	MG_TOT	MAGNESIUM TOTAL	459	MG/L	0.1		3000
12003	MG_TOT	MAGNESIUM TOTAL	460	MG/L			3000
12005	MG_TOT	MAGNESIUM TOTAL	440	MG/L	0.05		3000
12012	MG_TOT	MAGNESIUM TOTAL	441	UG/L	0.002		3000
12050	MG_TOT	MAGNESIUM TOTAL	58	MG/KG	3		10000
12051	MG_TOT	MAGNESIUM TOTAL	2310	MG/KG	0.5		85000
94013	121-75-5	MALATHION	1781	UG/L	.1		500000
18250	121-75-5	MALATHION	847	UG/L			5000000
96122	121-75-5	MALATHION	2341	NG/L	1.3		
18465	121-75-5	MALATHION	2349	UG/L	0.05		5000.00
25101	MN_DIS	MANGANESE DISSOLVED	1159	MG/L	.01		10000
25103	MN_DIS	MANGANESE DISSOLVED	1160	MG/L			1000
25104	MN_DIS	MANGANESE DISSOLVED	1161	MG/L	.01		1000
25105	MN_DIS	MANGANESE DISSOLVED	1149	MG/L	.001		1000
25107	MN_DIS	MANGANESE DISSOLVED	481	MG/L			1000
25106	MN_DIS	MANGANESE DISSOLVED	64	MG/L	.001		1000
25109	MN_DIS	MANGANESE DISSOLVED	1502	MG/L	.001		1000
25111	MN_DIS	MANGANESE DISSOLVED	1516	UG/L	1		1000
25204	MN_EXTR	MANGANESE EXTRACTABLE	1161	MG/L	.01		1000
25205	MN_EXTR	MANGANESE EXTRACTABLE	1149	MG/L	.001		1000
25211	MN_EXTR	MANGANESE EXTRACTABLE	1519	UG/L	1		1000
25301	MN_EXTR	MANGANESE EXTRACTABLE	1170	MG/L			1000
25303	MN_EXTR	MANGANESE EXTRACTABLE	1171	MG/L			1000
25304	MN_EXTR	MANGANESE EXTRACTABLE	1172	MG/L	.01		1000
25305	MN_EXTR	MANGANESE EXTRACTABLE	1149	MG/L	.001		1000
25306	MN_EXTR	MANGANESE EXTRACTABLE	481	MG/L			1000
25309	MN_EXTR	MANGANESE EXTRACTABLE	504	MG/L	.0005		1000
25311	MN_EXTR	MANGANESE EXTRACTABLE	1502	MG/L	.001		1000
25321	MN_EXTR	MANGANESE EXTRACTABLE	1526	UG/L	0.5		1000
25601	MN_EXTR	MANGANESE EXTRACTABLE	1529	MG/KG			

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VARIABLE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
25312	MN_EXTR	MANGANESE EXTRACTABLE	2322	MG/L	0.02		32.0
25330	MN_EXTR	MANGANESE EXTRACTABLE	2346	MG/KG	0.01		
25054	MN_NON-RES	MANGANESE NON-RES	487	MG/KG	0.1		4000
25010	MN_TOT	MANGANESE TOTAL	1502	MG/L	.001		
25011	MN_TOT	MANGANESE TOTAL	1503	UG/L	1		50000
25012	MN_TOT	MANGANESE TOTAL	441	UG/L	0.03		
25050	MN_TOT	MANGANESE TOTAL	58	MG/KG	10.0		
25052	MN_TOT	MANGANESE TOTAL	1508	MG/KG	30.0		
25053	MN_TOT	MANGANESE TOTAL	486	MG/KG	1		30000
25003	MN_TOT	MANGANESE TOTAL	1502	MG/L	.001		
25004	MN_TOT	MANGANESE TOTAL	1161	MG/L	.01		50000
25005	MN_TOT	MANGANESE TOTAL	1149	MG/L	.001		10000
25008	MN_TOT	MANGANESE TOTAL	479	MG/L	.04		10000
25009	MN_TOT	MANGANESE TOTAL	1151	MG/L			
25051	MN_TOT	MANGANESE TOTAL	2314	MG/KG	0.5		30000
25360	MN_TOT	MANGANESE TOTAL	1520	MG/L	0.01		2.500
97172	MAX_DAY_DISCHARGE_YR	MAXIMUM DAILY DISCHARGE FOR YEAR	2201	M3/S			
96000	94-74-6	MCPA	1946	UG/L	.2		500000
18523	94-74-6	MCPA	938	UG/L	.03		100000
18520	94-74-6	MCPA	786	UG/L			50000000
96942	94-74-6	MCPA	2343	NG/L	0.3		
18471	94-74-6	MCPA	2349	UG/L	10.00		1000.00
18521	94-81-5	MCPB	936	UG/L	2.5		500000
18524	94-81-5	MCPB	938	UG/L	.05		100000
96949	94-81-5	MCPB	2343	NG/L	0.4		
99033	GRAIN_SIZE	MEAN GRAIN SIZE	2290	PHI UNITS			12
16110	S_MERCAPTAN	MERCAPTAN	607	MG/L			
80101	HG_DIS	MERCURY DISSOLVED	1594	MG/L	.00005		100
80111	HG_DIS	MERCURY DISSOLVED	1594	UG/L			100
80201	HG_EXTR	MERCURY EXTRACTABLE	1594	MG/L	.00005		100
80211	HG_EXTR	MERCURY EXTRACTABLE	1594	UG/L			100
80301	HG_EXTR	MERCURY EXTRACTABLE	1594	MG/L	.00005		100
80311	HG_EXTR	MERCURY EXTRACTABLE	1594	MG/L			100
80312	HG_EXTR	MERCURY EXTRACTABLE	1608	UG/L			100
80313	HG_EXTR	MERCURY EXTRACTABLE	1594	UG/L			100
80314	HG_EXTR	MERCURY EXTRACTABLE	1594	UG/L			100
80315	HG_EXTR	MERCURY EXTRACTABLE	1611	UG/L	0.02		10
80401	HG_EXTR	MERCURY EXTRACTABLE	1612	UG/KG			100000
80601	HG_EXTR	MERCURY EXTRACTABLE	1613	MG/KG	0.02		100
80602	HG_EXTR	MERCURY EXTRACTABLE	1614	MG/KG			
80503	HG_EXTR	MERCURY EXTRACTABLE	1615	MG/KG	0.1		100
80016	HG_TOT	MERCURY TOTAL	1611	UG/L	0.02		100
80050	HG_TOT	MERCURY TOTAL	1599	MG/KG	0.01		1000
80051	HG_TOT	MERCURY TOTAL	1600	MG/KG	0.4		
80052	HG_TOT	MERCURY TOTAL	1611	MG/KG	0.020		50
80011	HG_TOT	MERCURY TOTAL	1594	UG/L	0.05		100
80013	HG_TOT	MERCURY TOTAL	1595	UG/L			100
80014	HG_TOT	MERCURY TOTAL	1595	UG/L	1.0		10
80015	HG_TOT	MERCURY TOTAL	1594	MG/L	.0001		10000
18442	2032-65-7	METHIOCARB	911	UG/L	.1		
18452	2032-65-7	METHIOCARB	918	MG/KG	.02		
18402	2032-65-7	METHIOCARB	892	UG/L	.5		10000
18443	16752-77-5	METHOMYL	911	UG/L	.11		
18453	16752-77-5	METHOMYL	918	MG/KG	.022		
95425	72-43-5	METHOXYCHLOR	2366	NG/G	4		
96827	72-43-5	METHOXYCHLOR	2149	NG/G	18.0		
96767	72-43-5	METHOXYCHLOR	2104	NG/G	5.0		
96006	72-43-5	METHOXYCHLOR	1947	NG/L	1.600		
93024	72-43-5	METHOXYCHLOR	1730	UG/L	.03		200000
18031	72-43-5	METHOXYCHLOR	719	MG/KG			
18030	72-43-5	METHOXYCHLOR	718	UG/L	.01		100000
18031	72-43-5	METHOXYCHLOR	719	MG/KG	.05		500000
18033	72-43-5	METHOXYCHLOR	722	UG/L	.001		10000
18034	72-43-5	METHOXYCHLOR	675	MG/KG	.001		10000
18035	72-43-5	METHOXYCHLOR	673	NG/L	0.4		
95261	72-43-5	METHOXYCHLOR	2301	UG/L	0.04		
96928	72-43-5	METHOXYCHLOR	2339	NG/G	2.50		
18495	72-43-5	METHOXYCHLOR	2349	UG/L	0.10		100.00
82655	PBCH3(CH2CH3)3	METHYL TRIETHYL LEAD	1668	UG/KG	15		50
82455	PBCH3(CH2CH3)3	METHYL TRIETHYL LEAD	1668	UG/KG	15000		5000
18325	953-17-3	METHYLCARBOPHENOTHION	847	UG/L			5000000
96305	75-09-2	METHYLENE CHLORIDE	1947	NG/L	0.160		
95222	75-09-2	METHYLENE CHLORIDE	2321	UG/L	2		500000
95118	75-09-2	METHYLENE CHLORIDE	1867	UG/L	10		500000
00003	75-09-2	METHYLENE CHLORIDE	2348	UG/L	1.0		500.00
96200	51218-45-2	METOLACHLOR	1970	NG/L	0.1		500
00306	51218-45-2	METOLACHLOR	2303	NG/G	441		

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VARIABLE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
96910	51218-45-2	METOLACHLOR	2339	NG/G	25.0		
96151	51218-45-2	METOLACHLOR	2345	NG/L	0.35		
18470	51218-45-2	METOLACHLOR	2349	UG/L	0.10		100.00
95407	51218-45-2	METOLACHLOR	2366	NG/G	4		
93035	21087-64-9	METRIBUZIN	1759	UG/L	.07		200000
95178	21087-64-9	METRIBUZIN	2300	UG/L	1.0		
18422	21087-64-9	METRIBUZIN	2349	UG/L	0.05		10.00
18435	METR-100	METRIBUZIN TOTAL	786	UG/L	.1		10000
94016	26718-65-0	MEVINPHOS	1781	UG/L	.15		200000
18350	26718-65-0	MEVINPHOS	786	UG/L			5000000
18448	315-18-4	MEXACARBATE	911	UG/L	.32		
18458	315-18-4	MEXACARBATE	918	MG/KG	.064		
12401	MGO	MGO	457	%			
97174	MIN_DAY_DISCHARGE_YR	MINIMUM DAILY DISCHARGE FOR YEAR	2202	M3/S			
95424	2385-85-5	MIREX	2366	NG/G	4		
96826	2385-85-5	MIREX	2149	NG/G	4.3		
96766	2385-85-5	MIREX	2104	NG/G	5.0		
93025	2385-85-5	MIREX	1730	UG/L	.01		200000
96015	2385-85-5	MIREX	1947	NG/L	0.110		
18629	2385-85-5	MIREX	719	MG/KG			
18124	2385-85-5	MIREX	668	MG/KG	.004		
18125	2385-85-5	MIREX	718	UG/L	.001		100000
18126	2385-85-5	MIREX	722	UG/L	.001		10000
18127	2385-85-5	MIREX	673	NG/L	0.4		
18128	2385-85-5	MIREX	675	MG/KG	.001		10000
18129	2385-85-5	MIREX	719	MG/KG	.001		500000
95262	2385-85-5	MIREX	2301	UG/L	0.02		
96927	2385-85-5	MIREX	2339	NG/G	0.30		
18484	2385-85-5	MIREX	2349	UG/L	0.005		100.000
25401	MNO_EXTR	MNO EXTRACTABLE	457	%			0.5
18404	1079-33-0	MOBAM	952	UG/L	.5		10000
18408	1079-33-0	MOBAM	911	UG/L	.06		
18409	1079-33-0	MOBAM	918	MG/KG	.012		
97400	MOISTURE	MOISTURE SEDIMENT	2254	%	0.5		
42101	MO_DIS	MOLYBDENUM DISSOLVED	1113	MG/L	.05		10000
42102	MO_DIS	MOLYBDENUM DISSOLVED	1457	MG/L	.0002		5000
42109	MO_DIS	MOLYBDENUM DISSOLVED	1502	MG/L	.001		
42111	MO_DIS	MOLYBDENUM DISSOLVED	1516	UG/L	4		50000
42055	MO_EXTR	MOLYBDENUM EXTRACTABLE	2346	MG/KG	0.02		
42302	MO_EXTR	MOLYBDENUM EXTRACTABLE	1457	MG/L	.0002		5000
42601	MO_EXTR	MOLYBDENUM EXTRACTABLE	1529	MG/KG			
42121	MO_EXTR	MOLYBDENUM EXTRACTABLE	1526	UG/L	1		1000
42201	MO_EXTR	MOLYBDENUM EXTRACTABLE	1113	MG/L	.05		10000
42202	MO_EXTR	MOLYBDENUM EXTRACTABLE	1457	MG/L	.0002		5000
42211	MO_EXTR	MOLYBDENUM EXTRACTABLE	1519	UG/L	4		50000
42301	MO_EXTR	MOLYBDENUM EXTRACTABLE	1113	MG/L	.05		10000
42303	MO_EXTR	MOLYBDENUM EXTRACTABLE	1170	MG/L			10000
42304	MO_EXTR	MOLYBDENUM EXTRACTABLE	1477	MG/L	.001		10000
42311	MO_EXTR	MOLYBDENUM EXTRACTABLE	1502	MG/L	.001		
42401	MO_EXTR	MOLYBDENUM EXTRACTABLE	82	MG/KG			10000
99508	MO_EXTR	MOLYBDENUM EXTRACTABLE	2346	MG/KG	0.02		
42000	MO_TOT	MOLYBDENUM TOTAL	1113	MG/L			
42001	MO_TOT	MOLYBDENUM TOTAL	1113	MG/L	.05		10000
42002	MO_TOT	MOLYBDENUM TOTAL	1457	MG/L	.0002		10000
42004	MO_TOT	MOLYBDENUM TOTAL	1113	MG/L	.001		10000
42005	MO_TOT	MOLYBDENUM TOTAL	2364	MG/L			
42006	MO_TOT	MOLYBDENUM TOTAL	481	MG/L			
42009	MO_TOT	MOLYBDENUM TOTAL	1502	MG/L	.004		
42011	MO_TOT	MOLYBDENUM TOTAL	1503	UG/L	4		50000
42012	MO_TOT	MOLYBDENUM TOTAL	441	UG/L	0.04		
42050	MO_TOT	MOLYBDENUM TOTAL	58	MG/KG	50		
42053	MO_TOT	MOLYBDENUM TOTAL	486	MG/KG	5		400000
42330	MO_TOT	MOLYBDENUM TOTAL	1520	MG/L	0.01		2.500
96100	150-68-5	MONURON	1956	UG/L	1		500000
06500	N_ALKANES	N-ALKANES C10 - C26	143	UG/L	1.0		500
10701	LAS	N-ALKYL SULPHONATES (LAS)	429	MG/L			100
95044	621-64-7	N-NITROSODI-N-PROPYLAMINE	2319	UG/L	1		500000
95043	86-30-6	N-NITROSODIPHENYLAMINE	2319	UG/L	2		500000
00041	103-65-1	N-PROPYLBENZENE	2348	UG/L	0.2		500.00
11401	NA2O	NA2O	457	%			
15441	NAIP	NAIP	585	MG/KG			100000
00290	91-20-3	NAPHTHALENE	2303	NG/G	82		
95135	91-20-3	NAPHTHALENE	2316	UG/L	0.1		
95026	91-20-3	NAPHTHALENE	2319	UG/L	10		
96143	91-20-3	NAPHTHALENE	2345	NG/L	0.11		
97325	SOLAR_RAD	NET SOLAR RADIATION (RF4)	2235	MEGAJ/M2			
28101	NI_DIS	NICKEL DISSOLVED	479	MG/L	.01		100000

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VARIABLE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
28102	NI_DIS	NICKEL DISSOLVED	1183	MG/L	.001		10000
28107	NI_DIS	NICKEL DISSOLVED	481	MG/L			
28109	NI_DIS	NICKEL DISSOLVED	1502	MG/L	.001		
28111	NI_DIS	NICKEL DISSOLVED	1516	UG/L	2		50000
28307	NI_EXTR	NICKEL EXTRACTABLE	1249	MG/L			10000
28309	NI_EXTR	NICKEL EXTRACTABLE	504	MG/L	.0005		200
28311	NI_EXTR	NICKEL EXTRACTABLE	1502	MG/L	.001		
28321	NI_EXTR	NICKEL EXTRACTABLE	1526	UG/L	2		1000
28401	NI_EXTR	NICKEL EXTRACTABLE	1277	MG/KG			2000
28402	NI_EXTR	NICKEL EXTRACTABLE	82	MG/KG			1100000
28601	NI_EXTR	NICKEL EXTRACTABLE	1529	MG/KG	0.05		100
28201	NI_EXTR	NICKEL EXTRACTABLE	479	MG/L	.01		100000
28202	NI_EXTR	NICKEL EXTRACTABLE	1183	MG/L	.001		10000
28211	NI_EXTR	NICKEL EXTRACTABLE	1519	UG/L	2		50000
28301	NI_EXTR	NICKEL EXTRACTABLE	479	MG/L	.01		100000
28302	NI_EXTR	NICKEL EXTRACTABLE	1183	MG/L	.001		10000
28303	NI_EXTR	NICKEL EXTRACTABLE	1170	MG/L			10000
28312	NI_EXTR	NICKEL EXTRACTABLE	2322	MG/L	0.05		50.0
28330	NI_EXTR	NICKEL EXTRACTABLE	2346	MG/KG	0.04		
28054	NI_NON-RES	NICKEL NON-RES	487	MG/KG	0.1		5000
28001	NI_TOT	NICKEL TOTAL	479	MG/L	.01		100000
28002	NI_TOT	NICKEL TOTAL	1183	MG/L	.001		10000
28003	NI_TOT	NICKEL TOTAL	479	MG/L			
28004	NI_TOT	NICKEL TOTAL	1249	MG/L			
28006	NI_TOT	NICKEL TOTAL	1250	MG/L	.001		10000
28007	NI_TOT	NICKEL TOTAL	1249	MG/L			
28008	NI_TOT	NICKEL TOTAL	1252	MG/L			
28009	NI_TOT	NICKEL TOTAL	1502	MG/L	.002		
28011	NI_TOT	NICKEL TOTAL	1254	UG/L	2		50000
28012	NI_TOT	NICKEL TOTAL	441	UG/L	0.02		
28050	NI_TOT	NICKEL TOTAL	58	MG/KG	10		
28051	NI_TOT	NICKEL TOTAL	1226	MG/KG	2		1000
28052	NI_TOT	NICKEL TOTAL	1508	MG/KG	50.0		
28053	NI_TOT	NICKEL TOTAL	486	MG/KG	1		50000
28350	NI_TOT	NICKEL TOTAL	1520	MG/L	0.01		2.500
28020	NI_TOT_REC	NICKEL TOTAL RECOVERABLE	1224	MG/L	.002		
07121	NO3_NO2	NITRATE/ NITRITE	243	MG/L			100000
10711	NTA	NITRILOTRIACETIC ACID	432	MG/L	.025		10000
10712	NTA	NITRILOTRIACETIC ACID	433	MG/L	0.1		10000
95042	98-95-3	NITROBENZENE	2319	UG/L	1		500000
07701	N_ALBUMINOID	NITROGEN ALBUMINOID TOTAL N	276	MG/L			50
07651	N_DIS	NITROGEN DISSOLVED	300	MG/L	0.025		200
07652	N_DIS	NITROGEN DISSOLVED	307	MG/L			200
07651	N_DIS	NITROGEN DISSOLVED	300	MG/L			200
07017	N_KJEL_DIS	NITROGEN DISSOLVED KJELDAHL	219	MG/L	.04		100000
07051	N_KJEL_DIS	NITROGEN DISSOLVED KJELDAHL	217	MG/L	.5		100000
07301	NO3_DIS	NITROGEN DISSOLVED NITRATE	257	MG/L			100000
07306	NO3_DIS	NITROGEN DISSOLVED NITRATE	258	MG/L			100000
07307	NO3_DIS	NITROGEN DISSOLVED NITRATE	258	MG/L	.023		100000
07308	NO3_DIS	NITROGEN DISSOLVED NITRATE	260	MG/L	.023		100000
07309	NO3_DIS	NITROGEN DISSOLVED NITRATE	261	MG/L	0.05		200
07310	NO3_DIS	NITROGEN DISSOLVED NITRATE	262	MG/L			200
07311	NO3_DIS	NITROGEN DISSOLVED NITRATE	263	MG/L	0.1		200
07312	NO3_DIS	NITROGEN DISSOLVED NITRATE	264	MG/L	0.02		200
07313	NO3_DIS	NITROGEN DISSOLVED NITRATE	265	MG/L			200
07314	NO3_DIS	NITROGEN DISSOLVED NITRATE	266	MG/L			200
07315	NO3_DIS	NITROGEN DISSOLVED NITRATE	267	MG/L	0.01		200
07295	NO2_DIS	NITROGEN DISSOLVED NITRITE	2359	MG/L			100000
07296	NO2_DIS	NITROGEN DISSOLVED NITRITE	239	MG/L	.001		100000
07207	NO2_DIS	NITROGEN DISSOLVED NITRITE	2361	MG/L			100000
07111	N_NO3_NO2_DIS	NITROGEN DISSOLVED NO3 & NO2	245	MG/L	.002		100000
07112	N_NO3_NO2_DIS	NITROGEN DISSOLVED NO3 & NO2	239	MG/L			100000
07113	N_NO3_NO2_DIS	NITROGEN DISSOLVED NO3 & NO2	239	MG/L			100000
07119	N_NO3_NO2_DIS	NITROGEN DISSOLVED NO3 & NO2	248	MG/L			100000
07120	N_NO3_NO2_DIS	NITROGEN DISSOLVED NO3 & NO2	243	MG/L			100000
07102	N_NO3_NO2_DIS	NITROGEN DISSOLVED NO3 & NO2	2359	MG/L			100000
07105	N_NO3_NO2_DIS	NITROGEN DISSOLVED NO3 & NO2	2359	MG/L			100000
07106	N_NO3_NO2_DIS	NITROGEN DISSOLVED NO3 & NO2	239	MG/L	.001		100000
07108	N_NO3_NO2_DIS	NITROGEN DISSOLVED NO3 & NO2	242	MG/L			100000
07109	N_NO3_NO2_DIS	NITROGEN DISSOLVED NO3 & NO2	243	MG/L			100000
07110	N_NO3_NO2_DIS	NITROGEN DISSOLVED NO3 & NO2	239	MG/L	.005		100000
07009	N_KJEL	NITROGEN KJELDAHL	224	MG/KG	300		
07260	NO2	NITROGEN NITRITE	251	MG/KG	10		
07160	N_NO3_NO2	NITROGEN NO3 & NO2	251	MG/KG	10		
07901	N_PART	NITROGEN PARTICULATE	210	MG/L	0.02		200
07902	N_PART	NITROGEN PARTICULATE	210	MG/L	0.002		200
07903	N_PART	NITROGEN PARTICULATE	210	MG/L			200

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VARIABLE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
07904	N_PART	NITROGEN PARTICULATE	316	MG/L			200
07905	N_PART_CALC	NITROGEN PARTICULATE (CALCD.)	316	MG/L			200
07912	N_ORG_PART	NITROGEN PARTICULATE ORGANIC	210	%			
07906	N_PART_TOT	NITROGEN PARTICULATE TOTAL	318	MG/L	0.001		200
07604	N_TOT	NITROGEN TOTAL	110	MG/KG			500
07605	N_TOT	NITROGEN TOTAL	300	MG/L	0.2		500
07610	N_TOT	NITROGEN TOTAL	305	MG/L	0.002		500
07421	N_TOT	NITROGEN TOTAL	273	MG/KG			1.5
07601	N_TOT	NITROGEN TOTAL	300	MG/L	0.025		500
07008	N_TOT	NITROGEN TOTAL	217	MG/KG			999999
07603	N_TOT_CALC	NITROGEN TOTAL (CALCD.)	302	MG/L			500
07602	N_TOT_CALC	NITROGEN TOTAL (CALCD.)	301	MG/L			500
07655	N_TOT_DIS	NITROGEN TOTAL DISSOLVED	300	MG/L	0.01		500
07003	N_KJEL_TOT	NITROGEN TOTAL KJELDAHL	219	MG/L			500000
07004	N_KJEL_TOT	NITROGEN TOTAL KJELDAHL	220	MG/L	.03		500000
07005	N_KJEL_TOT	NITROGEN TOTAL KJELDAHL	217	MG/L	.005		500000
07006	N_KJEL_TOT	NITROGEN TOTAL KJELDAHL	217	MG/L	.002		500000
07010	N_KJEL_TOT	NITROGEN TOTAL KJELDAHL	225	MG/L	.01		500000
07011	N_KJEL_TOT	NITROGEN TOTAL KJELDAHL	226	MG/L	.5		500000
07012	N_KJEL_TOT	NITROGEN TOTAL KJELDAHL	227	MG/L	.1		500000
07013	N_KJEL_TOT	NITROGEN TOTAL KJELDAHL	227	MG/L			500000
07014	N_KJEL_TOT	NITROGEN TOTAL KJELDAHL	227	MG/L			500000
07015	N_KJEL_TOT	NITROGEN TOTAL KJELDAHL	219	MG/L	.05		500000
07016	N_KJEL_TOT	NITROGEN TOTAL KJELDAHL	231	MG/L			500000
07018	N_KJEL_TOT	NITROGEN TOTAL KJELDAHL	233	MG/L	.01		500000
07020	N_KJEL_TOT	NITROGEN TOTAL KJELDAHL	219	MG/L			500000
07021	N_KJEL_TOT	NITROGEN TOTAL KJELDAHL	235	MG/L	.05		500000
07022	N_KJEL_TOT	NITROGEN TOTAL KJELDAHL	236	MG/L	.1		500000
07023	N_KJEL_TOT	NITROGEN TOTAL KJELDAHL	225	MG/L	.05		500000
07001	N_KJEL_TOT	NITROGEN TOTAL KJELDAHL	217	MG/L	.5		500000
07002	N_KJEL_TOT	NITROGEN TOTAL KJELDAHL	217	MG/L	.5		500000
07024	N_KJEL_TOT	NITROGEN TOTAL KJELDAHL	2308	MG/L	0.20		10.0
07357	NO3_TOT	NITROGEN TOTAL NITRATE	268	MG/L			200
07251	NO2_TOT	NITROGEN TOTAL NITRITE	2360	MG/L			100000
07401	N_ORG_TOT	NITROGEN TOTAL ORGANIC	217	MG/L	0.5		100
07403	N_ORG_TOT_CALC	NITROGEN TOTAL ORGANIC (CALCD.)	270	MG/L			100
07404	N_ORG_TOT_CALC	NITROGEN TOTAL ORGANIC (CALCD.)	271	MG/L			100
07405	N_ORG_TOT_CALC	NITROGEN TOTAL ORGANIC (CALCD.)	272	MG/L			100
10705	NONIONIC_TENSIDES	NONIONIC TENSIDES	431	MG/L			100
06545	NONYLPHENOL	NONYLPHENOL	162	UG/L	1		1000
06548	NONYLPHENOL	NONYLPHENOL	163	MG/KG	.3		1000000
93005	53-19-0	O,P'-DDD	1730	UG/L	.01		150000
18015	53-19-0	O,P'-DDD	718	UG/L	.001		900000
95247	53-19-0	O,P'-DDD	2301	UG/L	0.03		
18491	53-19-0	O,P'-DDD	2349	UG/L	0.001		900.000
93007	3424-82-6	O,P'-DDE	1730	UG/L	.01		100000
18025	3424-82-6	O,P'-DDE	718	UG/L	.001		900000
95249	3424-82-6	O,P'-DDE	2301	UG/L	0.01		
95420	789-02-6	O,P'-DDT	2366	NG/G	4		
96822	789-02-6	O,P'-DDT	2149	NG/G	7.0		
96762	789-02-6	O,P'-DDT	2104	NG/G	5.0		
96003	789-02-6	O,P'-DDT	1947	NG/L	0.260		
93009	789-02-6	O,P'-DDT	1730	UG/L	.02		200000
18026	789-02-6	O,P'-DDT	719	MG/KG			
18027	789-02-6	O,P'-DDT	673	NG/L	0.4		
18005	789-02-6	O,P'-DDT	718	UG/L	.001		100
18006	789-02-6	O,P'-DDT	719	MG/KG			500
18007	789-02-6	O,P'-DDT	722	UG/L	.001		10000
18008	789-02-6	O,P'-DDT	675	MG/KG	.001		10000
95251	789-02-6	O,P'-DDT	2301	UG/L	0.03		
18492	789-02-6	O,P'-DDT	2349	UG/L	0.003		100.000
95075	95-48-7	O-CRESOL	2319	UG/L	10		
95233	95-47-6	O-XYLENE	2321	UG/L	1		500000
95125	95-47-6	O-XYLENE	1867	UG/L	.1		500000
95076	95-47-6	O-XYLENE	2321	UG/L	1		
00038	95-47-6	O-XYLENE	2348	UG/L	0.5		500.00
99514	95-47-6	O-XYLENE	2352	UG/KG	10		
96500	2234-13-1_A	OCTACHLORONAPHTHALENE (FRACTION A)	2041	UG/L	0.7		
96505	2234-13-1_A	OCTACHLORONAPHTHALENE (FRACTION A)	2043	UG/L	0.7		
96501	2234-13-1_B	OCTACHLORONAPHTHALENE (FRACTION B)	2041	UG/L	0.7		
96506	2234-13-1_B	OCTACHLORONAPHTHALENE (FRACTION B)	2043	UG/L	0.7		
96801	29082-74-4	OCTACHLOROSTYRENE	2147	NG/G	1.0		
96260	29082-74-4	OCTACHLOROSTYRENE	2009	NG/L	0.05		
00268	3268-87-9	OCTA_CDD	2323	NG/KG	15.0		
00256	3268-87-9	OCTA_CDD	2324	NG/KG	15.0		
00280	3268-87-9	OCTA_CDD	2325	PG/L	15.0		
00274	39001-02-0	OCTA_CDF	2323	NG/KG	15.0		

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VARIABLE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
00262	39001-02-0	OCTA_CDF	2324	NG/KG	15.0		
00286	39001-02-0	OCTA_CDF	2325	PG/L	15.0		
97091	ODOUR_SITE	ODOUR APPARENT AT SITE	21	DESCR CODE			
97090	ODOUR_SMPL	ODOUR APPARENT IN SAMPLE	2190	DESCR CODE			
99015	SED_ODOUR	ODOUR OF SEDIMENT	2281	DESCR CODE			9
02001	ODOUR_THRES	ODOUR THRESHOLD NUMBER	21	T.O.N.			200
06521	OIL_GREASE	OIL AND GREASE	148	MG/L	1		2000000
06522	OIL_GREASE	OIL AND GREASE	149	MG/L	1		2000000
06523	OIL_GREASE	OIL AND GREASE	150	MG/L	1		2000000
06524	OIL_GREASE	OIL AND GREASE	151	MG/L			2000000
06526	OIL_GREASE	OIL AND GREASE	152	MG/KG	1		1000000
06580	ORG-ACIDS	ORGANIC ACIDS	2327	MEQ/L	0.0020		0.0330
17860	ORCL-100	ORGANOCHLORINE COMPOUNDS TOTAL	708	UG/L			
08003	O_DIS_SAT_DEEP	OXYGEN % SATURATN. DEEPEST	320	%			100
08004	O_DIS_SAT_UP	OXYGEN % SATURATN. UPPERMOST	320	%			
08201	O_BOD	OXYGEN BIOCHEMICAL DEMAND	330	MG/L	0.01		500
08202	O_BOD	OXYGEN BIOCHEMICAL DEMAND	331	MG/L	1		500
08203	O_BOD10	OXYGEN BIOCHEMICAL DEMAND BOD10	331	MG/L	0.1		500
08204	O_BOD14	OXYGEN BIOCHEMICAL DEMAND BOD14	331	MG/L	0.1		500
08215	O_BOD10_DIS	OXYGEN BIOCHEMICAL DEMAND DISSOLVED BOD10	331	MG/L	0.1		500
08216	O_BOD14_DIS	OXYGEN BIOCHEMICAL DEMAND DISSOLVED BOD14	331	MG/L	0.1		500
08211	O_BOD5_DIS	OXYGEN BIOCHEMICAL DEMAND DISSOLVED BOD5	330	MG/L			500
08212	O_BOD5_DIS	OXYGEN BIOCHEMICAL DEMAND DISSOLVED BOD5	331	MG/L			500
08213	O_BOD5_DIS	OXYGEN BIOCHEMICAL DEMAND DISSOLVED BOD5	326	MG/L			500
08214	O_BOD5_DIS	OXYGEN BIOCHEMICAL DEMAND DISSOLVED BOD5	331	MG/L	0.1		500
08401	O_CONSUMED	OXYGEN CONSUMED	349	MG/L			2000
08402	O_CONSUMED	OXYGEN CONSUMED	350	MG/L			2000
08101	O_DIS	OXYGEN DISSOLVED	324	MG/L	0.01		40
08102	O_DIS	OXYGEN DISSOLVED	325	MG/L			20
08103	O_DIS	OXYGEN DISSOLVED	326	MG/L	0.2		20
08106	O_DIS	OXYGEN DISSOLVED	329	MG/L			
08001	O_DIS_SAT	OXYGEN DISSOLVED % SATURATN.	320	%			100
08002	O_DIS_SAT_CALC	OXYGEN DISSOLVED % SATURATN. (CALCD.)	321	%			100
08351	O_COD_DIS	OXYGEN DISSOLVED COD	343	MG/L	1		1000
08104	O_DIS_DEEP	OXYGEN DISSOLVED DEEPEST	327	MG/L			
08105	O_DIS_UP	OXYGEN DISSOLVED UPPERMOST	327	MG/L			
08301	O_COD_TOT	OXYGEN TOTAL COD	343	MG/L	1		1000
08302	O_COD_TOT	OXYGEN TOTAL COD	343	MG/L	4		1000
08303	O_COD_TOT	OXYGEN TOTAL COD	345	MG/L	5		1000
08304	O_COD_TOT	OXYGEN TOTAL COD	346	MG/L	5		1000
08349	O_COD_TOT	OXYGEN TOTAL COD	347	KG/DAY			
96823	72-54-8	P,P'-DDD	2149	NG/G	6.0		
96763	72-54-8	P,P'-DDD	2104	NG/G	5.0		
96004	72-54-8	P,P'-DDD	1947	NG/L	0.220		
93006	72-54-8	P,P'-DDD	1730	UG/L	.01		100000
18611	72-54-8	P,P'-DDD	719	MG/KG			
18013	72-54-8	P,P'-DDD	673	NG/L	0.4		10000
18023	72-54-8	P,P'-DDD	718	UG/L	.001		10000
18024	72-54-8	P,P'-DDD	722	UG/L	.001		10000
18010	72-54-8	P,P'-DDD	718	UG/L	.001		100000
18011	72-54-8	P,P'-DDD	719	MG/KG			500000
18012	72-54-8	P,P'-DDD	675	MG/KG	.001		10000
95248	72-54-8	P,P'-DDD	2301	UG/L	0.03		
96924	72-54-8	P,P'-DDD	2339	NG/G	1.0		
18493	72-54-8	P,P'-DDD	2349	UG/L	0.005		100.000
18803	ORCIN-200	P,P'-DDD OLEFIN	980	UG/L			
95417	72-55-9	P,P'-DDE	2366	NG/G	4		
95421	72-55-9	P,P'-DDE	2366	NG/G	4		
96819	72-55-9	P,P'-DDE	2149	NG/G	5.6		
96759	72-55-9	P,P'-DDE	2104	NG/G	5.0		
96005	72-55-9	P,P'-DDE	1947	NG/L	0.200		
93008	72-55-9	P,P'-DDE	1730	UG/L	.01		100000
18621	72-55-9	P,P'-DDE	719	MG/KG			
18020	72-55-9	P,P'-DDE	718	UG/L	.001		100000
18021	72-55-9	P,P'-DDE	719	MG/KG			500000
18022	72-55-9	P,P'-DDE	722	UG/L	.001		10000
18026	72-55-9	P,P'-DDE	675	MG/KG	.001		10000
18029	72-55-9	P,P'-DDE	673	NG/L	0.4		
95250	72-55-9	P,P'-DDE	2301	UG/L	0.01		
96920	72-55-9	P,P'-DDE	2339	NG/G	0.50		
18483	72-55-9	P,P'-DDE	2349	UG/L	0.002		100.000
95422	50-29-3	P,P'-DDT	2366	NG/G	4		
96824	50-29-3	P,P'-DDT	2149	NG/G	7.5		
96764	50-29-3	P,P'-DDT	2104	NG/G	5.0		
96002	50-29-3	P,P'-DDT	1947	NG/L	0.280		
93010	50-29-3	P,P'-DDT	1730	UG/L	.02		200000
18602	50-29-3	P,P'-DDT	719	MG/KG			

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VARIABLE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
18028	50-29-3	P,P'-DDT	673	NG/L	0.4		
18000	50-29-3	P,P'-DDT	718	UG/L	.001		100
18001	50-29-3	P,P'-DDT	719	MG/KG	.001		500
18004	50-29-3	P,P'-DDT	722	UG/L	.001		10
18009	50-29-3	P,P'-DDT	675	MG/KG	.001		10000
95252	50-29-3	P,P'-DDT	2301	UG/L	0.03		
96925	50-29-3	P,P'-DDT	2339	NG/G	1.25		
18494	50-29-3	P,P'-DDT	2349	UG/L	0.005		100.000
95067	106-44-5	P-CRESOL	2319	UG/L	10		
95127	106-42-3	P-XYLENE	1867	UG/L	.1		500000
95078	106-42-3	P-XYLENE	2321	UG/L	1		
99516	106-42-3	P-XYLENE	2352	UG/KG	10		
15431	P2O5	P2O5	457	%			2
94018	311-45-5	PARA-OXON	1781	UG/L	.15		200000
93221	4685-14-7	PARAQUAT	1778	UG/L	50		500000
18700	4685-14-7	PARAQUAT	786	UG/L			5000000
94019	56-38-2	PARATHION	1781	UG/L	.15		200000
18240	56-38-2	PARATHION	847	UG/L			5000000
96123	56-38-2	PARATHION	2341	NG/L	0.5		
18467	56-38-2	PARATHION	2349	UG/L	0.05		5000.00
94014	298-00-0	PARATHION METHYL	1781	UG/L	.15		200000
18245	298-00-0	PARATHION METHYL	847	UG/L			5000000
96121	298-00-0	PARATHION METHYL	2341	NG/L	0.5		
18464	298-00-0	PARATHION METHYL	2349	UG/L	0.05		100.00
99025	PEBBLE_TYPE	PEBBLE TYPE	2286	DESCR CODE			9
17851	608-93-5	PENTACHLOROBENZENE	680	NG/L			
17850	608-93-5	PENTACHLOROBENZENE	677	UG/L	.002		
96836	608-93-5	PENTACHLOROBENZENE	2149	NG/G	3.7		
96776	608-93-5	PENTACHLOROBENZENE	2104	NG/G	5.0		
96287	608-93-5	PENTACHLOROBENZENE	1947	NG/L	0.050		
17855	608-93-5	PENTACHLOROBENZENE	681	MG/KG	.0008		
17856	608-93-5	PENTACHLOROBENZENE	680	MG/KG			
00019	76-01-7	PENTACHLOROETHANE	2348	UG/L	1.0		500.00
96600	87-86-5	PENTACHLOROPHENOL	2083	NG/G	10		
96532	87-86-5	PENTACHLOROPHENOL	2055	NG/G	600.0		
96267	87-86-5	PENTACHLOROPHENOL	2011	NG/L	0.13		
17803	87-86-5	PENTACHLOROPHENOL	665	UG/L	.01		500000
17804	87-86-5	PENTACHLOROPHENOL	643	UG/L	.01		
95141	87-86-5	PENTACHLOROPHENOL	2316	UG/L	0.1		
95152	87-86-5	PENTACHLOROPHENOL	2317	UG/L	5		
95010	87-86-5	PENTACHLOROPHENOL	2319	UG/L	10		
17752	87-86-5	PENTACHLOROPHENOL	643	NG/L	.01		
93026	72-56-0	PERTHANE	1730	UG/L	.25		100000
18920	198-55-0	PERYLENE	982	UG/L	.00001		
18930	198-55-0	PERYLENE	1007	MG/KG	.1		
95027	198-55-0	PERYLENE	2319	UG/L	10		
18999	PEST-100	PESTICIDES TOTAL (CALCD.)	1042	UG/L			
10300	PH	PH	388	PH UNITS			13.9
10301	PH	PH	389	PH UNITS			13.9
10302	PH	PH	389	PH UNITS			13.9
10303	PH	PH	389	PH UNITS			13.9
10304	PH	PH	392	PH UNITS			
10305	PH	PH	393	PH UNITS			9
10310	PH_THEO	PH THEORETICAL (CALCD.)	394	PH UNITS			
10311	PH_THEO_ERR	PH THEORETICAL ERROR (CALCD.)	395	%			
96788	85-01-8	PHENANTHRENE	2131	NG/G	15.0		
96558	85-01-8	PHENANTHRENE	2065	NG/G	15.0		
96279	85-01-8	PHENANTHRENE	2015	NG/L	0.40		
96218	85-01-8	PHENANTHRENE	1981	NG/L	15		
18979	85-01-8	PHENANTHRENE	847	NG/L	50		
18956	85-01-8	PHENANTHRENE	918	MG/KG			
95138	85-01-8	PHENANTHRENE	2316	UG/L	0.1		
95028	85-01-8	PHENANTHRENE	2319	UG/L	10		
00296	85-01-8	PHENANTHRENE	2303	NG/G	193		
96533	108-95-2	PHENOL	2055	NG/G	860.0		
96268	108-95-2	PHENOL	2011	NG/L	0.13		
95143	108-95-2	PHENOL	2317	UG/L	5		
95011	108-95-2	PHENOL	2319	UG/L	10		
06531	PHENOLIC_MAT	PHENOLIC MATERIAL	154	MG/L			10000
06532	PHENOLIC_MAT	PHENOLIC MATERIAL	154	MG/L	.002		10000
06533	PHENOLIC_MAT	PHENOLIC MATERIAL	154	MG/L	.001		10000
05534	PHENOLIC_MAT	PHENOLIC MATERIAL	154	MG/L	.001		10000
06535	PHENOLIC_MAT	PHENOLIC MATERIAL	157	MG/L	.001		10000
06536	PHENOLIC_MAT	PHENOLIC MATERIAL	154	MG/L	.0005		10000
06537	PHENOLIC_MAT	PHENOLIC MATERIAL	154	MG/L	.001		10000
06538	PHENOLIC_MAT	PHENOLIC MATERIAL	160	MG/L	.001		10000
18522	PHEN-100	PHENYL ACTIVES TOTAL (CALCD.)	937	UG/L			

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VARIABLE

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06730	PHEOPHYTIN_EXTR	PHEOPHYTIN EXTRACTABLE	207	MG/L			500
94020	298-02-2	PHORATE	1781	UG/L	.1		200000
18300	298-02-2	PHORATE	847	UG/L			5000000
96117	298-02-2	PHORATE	2341	NG/L	0.5		
18468	298-02-2	PHORATE	2349	UG/L	0.10		5000.00
18255	2310-17-0	PHOSALONE TOTAL	718	UG/L	.1		10000
18205	732-11-6	PHOSMET TOTAL	847	UG/L			5000000
18265	732-11-6	PHOSMET TOTAL	718	UG/L	.1		10000
96127	732-11-6	PHOSMET TOTAL	2341	NG/L	5.0		
18335	13171-21-6	PHOSPHAMIDON	718	UG/L	.1		10000
96131	13171-21-6	PHOSPHAMIDON	2341	NG/L	1.3		
15453	PO4_DIS	PHOSPHATE DISSOLVED	564	MG/L	.005		100000
15463	PO4_DIS	PHOSPHATE DISSOLVED	564	MG/L	.0002		100000
15464	PO4_DIS	PHOSPHATE DISSOLVED	576	MG/L	.015		100000
15353	PO4_INOR_DIS	PHOSPHATE DISSOLVED INORGANIC	558	MG/L	.005		100000
15356	PO4_INOR_DIS	PHOSPHATE DISSOLVED INORGANIC	559	MG/L	.002		100000
15363	PO4_INOR_DIS	PHOSPHATE DISSOLVED INORGANIC	558	MG/L	.001		100000
15364	PO4_INOR_DIS	PHOSPHATE DISSOLVED INORGANIC	561	MG/L	.002		100000
15365	PO4_INOR_DIS	PHOSPHATE DISSOLVED INORGANIC	555	MG/L	.005		100000
15254	PO4_ORTHO_DIS	PHOSPHATE DISSOLVED ORTHO	539	MG/L	.005		100000
15255	PO4_ORTHO_DIS	PHOSPHATE DISSOLVED ORTHO	539	MG/L	.002		100000
15256	PO4_ORTHO_DIS	PHOSPHATE DISSOLVED ORTHO	567	MG/L			100000
15257	PO4_ORTHO_DIS	PHOSPHATE DISSOLVED ORTHO	537	MG/L			100000
15258	PO4_ORTHO_DIS	PHOSPHATE DISSOLVED ORTHO	546	MG/L			100000
15259	PO4_ORTHO_DIS	PHOSPHATE DISSOLVED ORTHO	547	MG/L			100000
15260	PO4_ORTHO_DIS	PHOSPHATE DISSOLVED ORTHO	548	MG/L	.015		100000
15261	PO4_ORTHO_DIS	PHOSPHATE DISSOLVED ORTHO	539	MG/L			100000
15266	PO4_ORTHO_DIS	PHOSPHATE DISSOLVED ORTHO	567	MG/L			100000
15931	PO4_INOR_PART	PHOSPHATE INORGANIC PARTICULATE	603	MG/L			20000
15921	PO4_ORTHO_PART	PHOSPHATE PARTICULATE ORTHO	598	MG/L			10000
15201	PO4_ORTHO_SOL	PHOSPHATE SOLUBLE ORTHO	537	MG/L			100000
15202	PO4_ORTHO_SOL	PHOSPHATE SOLUBLE ORTHO	538	MG/L			100000
15206	PO4_ORTHO_SOL	PHOSPHATE SOLUBLE ORTHO	280	MG/L	.00001		100000
15402	PO4_TOT	PHOSPHATE TOTAL	563	MG/L			100000
15403	PO4_TOT	PHOSPHATE TOTAL	564	MG/L	.005		100000
15407	PO4_TOT	PHOSPHATE TOTAL	557	MG/L	.1		100000
15408	PO4_TOT	PHOSPHATE TOTAL	538	MG/L			100000
15416	PO4_TOT	PHOSPHATE TOTAL	577	MG/L	.05		100000
15404	PO4_TOT_FILTR	PHOSPHATE TOTAL (FILTRATE)	538	MG/L			100000
15313	PO4_INOR_TOT	PHOSPHATE TOTAL INORGANIC	554	MG/L	.005		100000
15314	PO4_INOR_TOT	PHOSPHATE TOTAL INORGANIC	555	MG/L			100000
15205	PO4_ORTHO_TOT	PHOSPHATE TOTAL ORTHO	539	MG/L	.002		100000
15207	PO4_ORTHO_TOT	PHOSPHATE TOTAL ORTHO	541	MG/L	.002		100000
54601	P_BIOAVAIL_DIS	PHOSPHOROUS DISSOLVED BIOAVAIL.	1559	MG/L			
15346	P_INOR_DIS	PHOSPHOROUS DISSOLVED INORGANIC	559	MG/L			100000
15280	P_ORG_DIS	PHOSPHOROUS DISSOLVED ORGANIC	552	MG/L			100000
15265	P_DIS_ORTHO	PHOSPHOROUS DISSOLVED ORTHO	2334	MG/L	0.002		0.400
15511	P_INOR	PHOSPHOROUS INORGANIC	595	MG/KG	50		10000
15060	P_INOR	PHOSPHOROUS INORGANIC	524	MG/KG	100		2000
15471	P_ORG	PHOSPHOROUS ORGANIC	590	MG/KG			10000
15070	P_ORG	PHOSPHOROUS ORGANIC	527	MG/KG			2000
15902	P_PART	PHOSPHOROUS PARTICULATE	598	MG/L			50000
15901	P_PART_CALC	PHOSPHOROUS PARTICULATE (CALCD.)	598	MG/L			50000
54611	P_BIOAVAIL_PAR	PHOSPHOROUS PARTICULATE BIOAVAIL.	1559	MG/L			
15920	P_PART_NFIL_TOT	PHOSPHOROUS PARTICULATE NON-FILTRAB. TOTAL	601	MG/L			5000
15961	P_ORG_PART	PHOSPHOROUS PARTICULATE ORGANIC	604	MG/L			20000
15970	P_PART_TOT	PHOSPHOROUS PARTICULATE TOTAL	601	MG/L			50000
15262	P_SOL_REAC	PHOSPHOROUS SOLUBLE REACTIVE	550	MG/L	.001		100000
15903	P_PART_SUS	PHOSPHOROUS SUSPENDED PARTICULATE	600	MG/L			50000
15418	P_TOT	PHOSPHOROUS TOTAL	579	MG/L			100000
15419	P_TOT	PHOSPHOROUS TOTAL	580	MG/L	.02		100000
15420	P_TOT	PHOSPHOROUS TOTAL	581	MG/L	.05		100000
15421	P_TOT	PHOSPHOROUS TOTAL	582	MG/L	.006		100000
15422	P_TOT	PHOSPHOROUS TOTAL	580	MG/L	.001		100000
15481	P_TOT	PHOSPHOROUS TOTAL	591	MG/KG			10000
15501	P_TOT	PHOSPHOROUS TOTAL	592	MG/KG	50		10000
15502	P_TOT	PHOSPHOROUS TOTAL	593	MG/KG	50		10000
15503	P_TOT	PHOSPHOROUS TOTAL	594	MG/KG	100		10000
15663	P_TOT	PHOSPHOROUS TOTAL	597	MG/KG	.1		1000
15315	P_TOT	PHOSPHOROUS TOTAL	556	MG/L	.01		100000
15405	P_TOT	PHOSPHOROUS TOTAL	566	MG/L	.002		100000
15406	P_TOT	PHOSPHOROUS TOTAL	567	MG/L	.002		100000
15409	P_TOT	PHOSPHOROUS TOTAL	570	MG/L	.02		100000
15411	P_TOT	PHOSPHOROUS TOTAL	2362	MG/L			100000
15412	P_TOT	PHOSPHOROUS TOTAL	563	MG/L			100000
15413	P_TOT	PHOSPHOROUS TOTAL	566	MG/L	.0002		100000
15414	P_TOT	PHOSPHOROUS TOTAL	575	MG/L			100000

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VARIABLE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
15415	P_TOT	PHOSPHOROUS TOTAL	576	MG/L	.015		100000
15050	P_TOT	PHOSPHOROUS TOTAL	524	MG/KG	100		2000
15051	P_TOT	PHOSPHOROUS TOTAL	525	MG/KG	100		2000
15410	P_TOT_FILTR	PHOSPHOROUS TOTAL (FILTRATE)	280	MG/L			100000
54621	P_BIOAVAIL_TOT	PHOSPHOROUS TOTAL BIOAVAIL.	1570	MG/L			
15417	P_TOT_DIS	PHOSPHOROUS TOTAL DISSOLVED	567	MG/L			100000
15101	P_TOT_DIS	PHOSPHOROUS TOTAL DISSOLVED	528	MG/L			100000
15102	P_TOT_DIS	PHOSPHOROUS TOTAL DISSOLVED	567	MG/L	.002		100000
15103	P_TOT_DIS	PHOSPHOROUS TOTAL DISSOLVED	567	MG/L	.003		100000
15104	P_TOT_DIS	PHOSPHOROUS TOTAL DISSOLVED	577	MG/L			100000
15105	P_TOT_DIS	PHOSPHOROUS TOTAL DISSOLVED	580	MG/L	.04		100000
15106	P_TOT_DIS	PHOSPHOROUS TOTAL DISSOLVED	533	MG/L	.01		100000
15107	P_TOT_DIS	PHOSPHOROUS TOTAL DISSOLVED	534	MG/L			100000
15113	P_TOT_DIS	PHOSPHOROUS TOTAL DISSOLVED	567	MG/L			100000
15114	P_TOT_DIS	PHOSPHOROUS TOTAL DISSOLVED	580	MG/L	.002		100000
15423	P_TOT_DIS	PHOSPHOROUS TOTAL DISSOLVED	2331	MG/L	0.002		0.400
15465	P_TOT_DIS	PHOSPHOROUS TOTAL DISSOLVED	2332	MG/L	0.002		0.400
15108	P_TOT_DIS	PHOSPHOROUS TOTAL DISSOLVED	2335	MG/L	0.010		1.000
15301	P_INOR_TOT	PHOSPHOROUS TOTAL INORGANIC	559	MG/L	.003		100000
15601	P_ORG_TOT	PHOSPHOROUS TOTAL ORGANIC	527	MG/L			100000
00289	39801-14-4	PHOTOMIREX	2302	NG/L	4.1		
96154	39801-14-4	PHOTOMIREX	2342	NG/L	0.06		
36301	PHYTOPLANKTON_COUNT	PHYTOPLANKTON COUNT	1427	NO/L			
36304	PHYTOPLANKTON_COUNT	PHYTOPLANKTON COUNT	1430	NO/ML			
36303	PHYTOPLANKTON_SP_CNT	PHYTOPLANKTON SPECIES COUNT	1429	NO			
36302	PHYTOPLANKTON_VOL_BI	PHYTOPLANKTON VOLUME BIOMASS	1428	MG/M3			
93039	1918-02-1	PICLORAM	1766	UG/L	.3		500000
18599	1918-02-1	PICLORAM	928	UG/L	.05		
18600	1918-02-1	PICLORAM	786	UG/L			5000000
18601	1918-02-1	PICLORAM	958	UG/L	.2		5000000
96950	1918-02-1	PICLORAM	2343	NG/L	0.5		
18446	23103-98-2	PIRIMICARB	911	UG/L	.3		
18456	23103-98-2	PIRIMICARB	918	MG/KG	.06		
84501	PO_RAD_TOT	POLONIUM RADIATION TOTAL PO-210	1681	BQ/L			10
84510	PO_RAD_TOT	POLONIUM RADIATION TOTAL PO-210	1598	BQ/L			99
84591	PO_RAD_TOT	POLONIUM RADIATION TOTAL PO-210	1683	BQ/L			100
06505	PAH	POLYAROMATIC HYDROCARBONS	144	UG/L	0.02		500
95426	1336-36-3	POLYCHLORINATED BIPHENYLS	2366	NG/G	9		
96828	1336-36-3	POLYCHLORINATED BIPHENYLS	2149	NG/G	77.0		
96768	1336-36-3	POLYCHLORINATED BIPHENYLS	2104	NG/G	5.0		
96019	1336-36-3	POLYCHLORINATED BIPHENYLS	1947	NG/L	3.000		
18158	1336-36-3	POLYCHLORINATED BIPHENYLS	673	NG/L	0.9		
17801	1336-36-3	POLYCHLORINATED BIPHENYLS	664	UG/L			
96929	1336-36-3	POLYCHLORINATED BIPHENYLS	2339	NG/G	10.0		
19101	K_DIS	POTASSIUM DISSOLVED	1048	MG/L	0.1		1000
19102	K_DIS	POTASSIUM DISSOLVED	444	MG/L	0.1		1000
19103	K_DIS	POTASSIUM DISSOLVED	445	MG/L	0.02		1000
19104	K_DIS	POTASSIUM DISSOLVED	440	MG/L			1000
19105	K_DIS	POTASSIUM DISSOLVED	1052	MG/L			500
19106	K_DIS	POTASSIUM DISSOLVED	448	MG/L	0.1		500
19107	K_DIS	POTASSIUM DISSOLVED	445	MG/L			1000
19111	K_DIS	POTASSIUM DISSOLVED	1516	MG/L	0.3		100
19115	K_DIS	POTASSIUM DISSOLVED	1502	MG/L	0.001		
19116	K_DIS	POTASSIUM DISSOLVED	451	MG/L	0.01		100
19301	K_EXTR	POTASSIUM EXTRACTABLE	1058	MG/L	0.01		
19311	K_EXTR	POTASSIUM EXTRACTABLE	455	MG/L	0.5		
19321	K_EXTR	POTASSIUM EXTRACTABLE	1526	UG/L	200		100
19312	K_EXTR	POTASSIUM EXTRACTABLE	2305	MG/L	0.01		40.0
19330	K_EXTR	POTASSIUM EXTRACTABLE	2346	MG/KG	4.0		
19001	K_TOT	POTASSIUM TOTAL	438	MG/L			
19002	K_TOT	POTASSIUM TOTAL	59	MG/L			
19005	K_TOT	POTASSIUM TOTAL	440	MG/L	0.2		
19008	K_TOT	POTASSIUM TOTAL	441	UG/L	0.20		
19050	K_TOT	POTASSIUM TOTAL	58	MG/KG	100		
19451	K_TOT	POTASSIUM TOTAL	1728	MG/L			
19006	K_TOT	POTASSIUM TOTAL	2305	MG/L	0.01		40.0
19051	K_TOT	POTASSIUM TOTAL	2312	MG/KG	0.5		35000
97350	PRECIP	PRECIPITATION	2236	CM			100
97355	PRECIP_CATCH	PRECIPITATION CATCH	2241	%			
97356	PRECIP_RECOV	PRECIPITATION RECOVERY (CALCD.)	2242	%			
97366	PRECIP_SAMPLER_TYPE	PRECIPITATION SAMPLER TYPE	2249	DESCR CODE			
97365	PRECIP_TYPE	PRECIPITATION TYPE	2248	DESCR CODE			
18425	1610-18-0	PROMETON	786	UG/L	.1		10000
95179	1610-18-0	PROMETON	2300	UG/L	0.50		
94027	7287-19-6	PROMETRYNE	1781	UG/L	1.2		200000
93027	1918-16-7	PROPACHLOR	1730	UG/L	.1		100000
95263	1918-16-7	PROPACHLOR	2301	UG/L	0.20		

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VARIABLE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
93036	709-98-8	PROPANIL	1759	UG/L	.5		200000
95180	709-98-8	PROPANIL	2300	UG/L	2.0		
94028	139-40-2	PROPAZINE	1781	UG/L	.5		200000
95181	139-40-2	PROPAZINE	2300	UG/L	0.50		
18445	122-42-9	PROPHAM	911	UG/L	.09		
18455	122-42-9	PROPHAM	918	MG/KG	.018		
18405	114-26-1	PROPOXUR	952	UG/L	.5		10000
18406	114-26-1	PROPOXUR	911	UG/L	.1		
18407	114-26-1	PROPOXUR	918	MG/KG	.02		
36200	PSEUDOMONAS_AERUGINO	PSEUDOMONAS AERUGINOSA	1424	NO/DL			
36201	PSEUDOMONAS_AERUGINO	PSEUDOMONAS AERUGINOSA	1425	NO/DL			
36211	PSEUDOMONAS_AERUGINO	PSEUDOMONAS AERUGINOSA	1425	NO/ML			
96789	129-00-0	PYRENE	2131	NG/G	15.0		
96559	129-00-0	PYRENE	2065	NG/G	15.0		
96511	129-00-0	PYRENE	2045	NG/G	182.0		
96219	129-00-0	PYRENE	1981	NG/L	15		
96202	129-00-0	PYRENE	1947	NG/L	0.320		
18981	129-00-0	PYRENE	847	NG/L	50		
16906	129-00-0	PYRENE	982	UG/L	.001		
18916	129-00-0	PYRENE	1007	MG/KG	.05		
95029	129-00-0	PYRENE	2319	UG/L	10		
14411	QUARTZ	QUARTZ	522	%			100
18972	91-22-5	QUINOLINE	847	NG/L	50		
18952	91-22-5	QUINOLINE	918	MG/KG			
88590	RA_RAD_DIS	RADIUM RADIATION DISSOLVED RA-226	1683	BQ/L			999.999
88520	RA_RAD_DIS	RADIUM RADIATION DISSOLVED RA-226	1706	BQ/L			
86510	RA_RAD	RADIUM RADIATION RA-226	1700	BQ/L			99
86591	RA_RAD	RADIUM RADIATION RA-226	1683	BQ/L			999.999
88502	RA_RAD	RADIUM RADIATION RA-226	1704	BQ/L			
88601	RA_RAD	RADIUM RADIATION RA-226	1704	BQ/KG			
88513	RA_RAD	RADIUM RADIATION RA-226	1705	BQ/G	0.0037		
88514	RA_RAD	RADIUM RADIATION RA-226	1706	BQ/G	0.0037		
88501	RA_RAD_TOT	RADIUM RADIATION TOTAL RA-226	1681	BQ/L			10
88503	RA_RAD_TOT	RADIUM RADIATION TOTAL RA-226	1705	BQ/L	0.0037		
88504	RA_RAD_TOT	RADIUM RADIATION TOTAL RA-226	1706	BQ/L	0.0037		
97362	RAIN_END_DATE	RAIN END DATE	2246	DDMMYY			
97363	RAIN_END_TIME	RAIN END TIME	2247	HR			
97361	RAIN_START_DATE	RAIN START DATE	2245	DDMMYY			
97360	RAIN_RECENT	RAINFALL RECENT	2244	MM			
02031	REDOX_POT	REDOX POTENTIAL	31	MV			
97910	REF_NUMB	REFERENCE NUMBER	2256	NO UNITS			
10451	RES_F	RESIDUE FILTERABLE	404	MG/L	10		5000
10452	RES_F	RESIDUE FILTERABLE	404	MG/L	10		5000
10453	RES_F	RESIDUE FILTERABLE	406	MG/L	2		5000
10454	RES_F	RESIDUE FILTERABLE	2304	MG/L	5		30000
10551	RES_FIX_F	RESIDUE FIXED FILTERABLE	420	MG/L	10		5000
10552	RES_FIX_F	RESIDUE FIXED FILTERABLE	2304	MG/L	5		30000
10501	RES_FIX_NF	RESIDUE FIXED NONFILTRABLE	411	MG/L	10		20000
10502	RES_FIX_NF	RESIDUE FIXED NONFILTRABLE	412	MG/L			20000
10504	RES_FIX_NF	RESIDUE FIXED NONFILTRABLE	413	MG/L			20000
10505	RES_FIX_NF	RESIDUE FIXED NONFILTRABLE	414	MG/L			20000
10506	RES_FIX_NF	RESIDUE FIXED NONFILTRABLE	2304	MG/L	5		30000
10571	RES_FIX_TOT	RESIDUE FIXED TOTAL	421	MG/L			25000
10572	RES_FIX_TOT	RESIDUE FIXED TOTAL	2304	MG/L	5		30000
10401	RES_NF	RESIDUE NONFILTRABLE	396	MG/L	10		20000
10402	RES_NF	RESIDUE NONFILTRABLE	397	MG/L			20000
10403	RES_NF	RESIDUE NONFILTRABLE	398	MG/L			20000
10404	RES_NF	RESIDUE NONFILTRABLE	399	MG/L			20000
10405	RES_NF	RESIDUE NONFILTRABLE	396	MG/L	1		20000
10406	RES_NF	RESIDUE NONFILTRABLE	401	MG/L	1		20000
10407	RES_NF	RESIDUE NONFILTRABLE	402	MG/L	2		20000
10408	RES_NF	RESIDUE NONFILTRABLE	403	MG/L			20000
10409	RES_NF	RESIDUE NONFILTRABLE	2304	MG/L	5		30000
10471	RES_TOT	RESIDUE TOTAL	407	MG/L			25000
10472	RES_TOT	RESIDUE TOTAL	408	MG/L			25000
10473	RES_TOT	RESIDUE TOTAL	406	MG/L	10		25000
10474	RES_TOT	RESIDUE TOTAL	410	MG/L	10		25000
10475	RES_TOT	RESIDUE TOTAL	2304	MG/L	5		30000
10531	RES_VOL_F	RESIDUE VOLATILE FILTERABLE	419	MG/L			5000
10512	RES_VOL_NF	RESIDUE VOLATILE NONFILTRABLE	416	MG/L			10000
10513	RES_VOL_NF	RESIDUE VOLATILE NONFILTRABLE	2304	MG/L	5		30000
10511	RES_VOL_NF_CALC	RESIDUE VOLATILE NONFILTRABLE (CALCD.)	415	MG/L			10000
10522	RES_VOL_TOT	RESIDUE VOLATILE TOTAL	418	MG/L			5000
10521	RES_VOL_TOT_CALC	RESIDUE VOLATILE TOTAL (CALCD.)	417	MG/L			5000
10721	RESIN_ACID	RESIN ACID SOAPS	434	MG/L	0.1		1000
10729	RESIN_ACID	RESIN ACID SOAPS	435	KG/DAY			
10801	SALINITY	SALINITY	436	MG/L			500

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VARIABLE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
98025	SMPL_CONTAINER	SAMPLE CONTAINER	2264	DESCR CODE			
99005	SMPL_PHOTO	SAMPLE PHOTO	2276	DESCR CODE			1
97370	SMPL_RECEIVED	SAMPLE RECEIVED AT LABORATORY	2250	DDMMYY			
97372	SMPL_TEMP	SAMPLE TEMPERATURE AT LABORATORY	2252	DEG C			
97351	SMPL_VOL	SAMPLE VOLUME	2237	ML			
97371	SMPL_WEIGHT	SAMPLE WEIGHT AT LABORATORY	2251	G			
98023	SAMPLER	SAMPLER AREA	2263	CM2			20000
98028	SAMPLER_HEIGHT	SAMPLER HEIGHT	2265	M			1000
97265	DEPTH_SMPL_%TOT	SAMPLING DEPTH PERCENT OF TOTAL DEPTH	2217	%			100
97201	DIST_LEFT_BANK	SAMPLING DISTANCE FROM LEFT BANK	2207	FT			20000
97202	DIST_LEFT_BANK	SAMPLING DISTANCE FROM LEFT BANK	2208	M			10000
97203	DIST_LEFT_BANK	SAMPLING DISTANCE FROM LEFT BANK	2209	%			
97205	DIST_RIGHT_BANK	SAMPLING DISTANCE FROM RIGHT BANK	2210	FT			20000
97206	DIST_RIGHT_BANK	SAMPLING DISTANCE FROM RIGHT BANK	2211	M			5000
97352	SMPL_DURAT	SAMPLING DURATION	2238	DAYS			1000
97357	SMPL_DURAT_SEQ	SAMPLING DURATION SEQUENTIAL	2243	MIN			
00190	SAMPL_METH_DESC	SAMPLING METHOD DESCRIPTIVE	7	NO UNITS			
97353	SMPL_PERIOD_COMP	SAMPLING PERIOD COMPOSITE	2239	DAYS			1000
00210	SATUR_INDEX	SATURATION INDEX (CALCD.)	15	PH UNITS			
97242	DEPTH_SED_SMPL	SEDIMENT SAMPLE DEPTH	2213	CM			100
99001	SED_SMPLR	SEDIMENT SAMPLER	2274	DESCR CODE			9
97240	SED_SMPL_METH	SEDIMENT SAMPLING METHOD	2212	DESCR CODE			100
97283	SED_SIZE_CLAY	SEDIMENT SIZE CLAY	2224	%			
97280	SED_SIZE_GRAVEL	SEDIMENT SIZE GRAVEL	2221	%			
97281	SED_SIZE_SAND	SEDIMENT SIZE SAND	2222	%			
97282	SED_SIZE_SILT	SEDIMENT SIZE SILT	2223	%			
99027	SED_SUBSTR	SEDIMENT SUBSTRATE	2287	DESCR CODE			9
99019	SED_STRUC	SEDIMENTARY STRUCTURE	2283	DESCR CODE			9
34102	SE_DIS	SELENIUM DISSOLVED	1399	MG/L	.0001		20000
34108	SE_DIS	SELENIUM DISSOLVED	1367	MG/L			
34301	SE_EXTR	SELENIUM EXTRACTABLE	479	MG/L	.001		10000
34302	SE_EXTR	SELENIUM EXTRACTABLE	1399	MG/L	.0001		20000
34401	SE_EXTR	SELENIUM EXTRACTABLE	82	MG/KG			10
34601	SE_EXTR	SELENIUM EXTRACTABLE	1385	MG/KG	0.05		100
34602	SE_EXTR	SELENIUM EXTRACTABLE	1373	MG/KG	0.05		
34651	SE_EXTR	SELENIUM EXTRACTABLE	1406	MG/KG	0.01		100
34654	SE_NON-RES	SELENIUM NON-RES	1398	MG/KG	0.01		5000
34010	SE_TOT	SELENIUM TOTAL	1399	MG/L	.1		
34011	SE_TOT	SELENIUM TOTAL	1370	MG/L	.0002		
34050	SE_TOT	SELENIUM TOTAL	1372	MG/KG	0.025		100
34052	SE_TOT	SELENIUM TOTAL	1373	MG/KG	0.05		
34001	SE_TOT	SELENIUM TOTAL	1387	MG/L	.002		10000
34002	SE_TOT	SELENIUM TOTAL	438	MG/L			
34004	SE_TOT	SELENIUM TOTAL	1389	MG/L			10000
34005	SE_TOT	SELENIUM TOTAL	1399	MG/L			10000
34007	SE_TOT	SELENIUM TOTAL	1399	MG/L	.001		10000
34008	SE_TOT	SELENIUM TOTAL	1367	MG/L	.00003		
34009	SE_TOT	SELENIUM TOTAL	1368	MG/L	.001		
14111	SIO2_DIS	SILICA DISSOLVED	1516	UG/L	8		2000
14101	SIO2_REAC	SILICA REACTIVE	511	MG/L	0.02		30000
14102	SIO2_REAC	SILICA REACTIVE	512	MG/L	0.02		30000
14103	SIO2_REAC	SILICA REACTIVE	513	MG/L			30000
14105	SIO2_REAC	SILICA REACTIVE	512	MG/L	0.2		30000
14106	SIO2_REAC	SILICA REACTIVE	512	MG/L			30000
14107	SIO2_REAC_FIL	SILICA REACTIVE FILTERED	512	MG/L			30000
14112	SIO2_TOT	SILICON DIOXIDE TOTAL	441	UG/L	0.025		
14120	SI_DIS	SILICON DISSOLVED	519	MG/L	0.5		2000
14201	SI_ORTHO	SILICON SOL. ORTHOSILICATE	520	MG/L			2000
14050	SI_TOT	SILICON TOTAL	58	MG/KG	500		500000
47101	AG_DIS	SILVER DISSOLVED	1491	MG/L	.01		1000
47102	AG_DIS	SILVER DISSOLVED	1492	MG/L	.005		1000
47103	AG_DIS	SILVER DISSOLVED	1493	MG/L	.0001		1000
47201	AG_EXTR	SILVER EXTRACTABLE	1481	MG/L	.01		1000
47202	AG_EXTR	SILVER EXTRACTABLE	1482	MG/L	.005		1000
47203	AG_EXTR	SILVER EXTRACTABLE	1483	MG/L	.0001		1000
47301	AG_EXTR	SILVER EXTRACTABLE	1481	MG/L	.01		100
47302	AG_EXTR	SILVER EXTRACTABLE	1482	MG/L	.005		1000
47303	AG_EXTR	SILVER EXTRACTABLE	1483	MG/L	.0001		1000
47304	AG_EXTR	SILVER EXTRACTABLE	1494	MG/L	.001		
47401	AG_EXTR	SILVER EXTRACTABLE	82	MG/KG			20000
47001	AG_TOT	SILVER TOTAL	1481	MG/L	.01		1000
47002	AG_TOT	SILVER TOTAL	1482	MG/L	.005		1000
47003	AG_TOT	SILVER TOTAL	1483	MG/L	.0001		1000
47005	AG_TOT	SILVER TOTAL	481	MG/L	.0001		
94029	122-34-9	SIMAZINE	1781	UG/L	3		200000
95182	122-34-9	SIMAZINE	2300	UG/L	0.50		
18505	122-34-9	SIMAZINE	2349	UG/L	0.1		

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VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
18420	SIMA-100	SIMAZINE TOTAL	786	UG/L	.1		10000
14401	SIO2	SIO2	457	%			98
14109	SIO2	SIO2	2328	MG/L	0.020		
14108	SIO2	SIO2	2329	MG/L	0.020		
99037	SKEWNESS	SKEWNESS	2292	PHI UNITS			1
97311	SNOW_COVER	SNOW COVER	2228	%			100
97317	SNOW_DENS	SNOW DENSITY	2233	G/CM3			1
97315	SNOW_DEPTH	SNOW DEPTH	2231	M			
97313	SNOW_LAYER_BOTTOM	SNOW LAYER BOTTOM	2230	CM			200
97312	SNOW_LAYER_TOP	SNOW LAYER TOP	2229	CM			200
97316	SNOW_TYPE	SNOW TYPE	2232	DESCR CODE			
11201	NA_ADSORP_RATIO	SODIUM ADSORPTION RATIO (CALCD.)	453	REL UNITS			
11101	NA_DIS	SODIUM DISSOLVED	59	MG/L	0.1		10000
11102	NA_DIS	SODIUM DISSOLVED	444	MG/L	0.1		10000
11103	NA_DIS	SODIUM DISSOLVED	445	MG/L	0.02		10000
11104	NA_DIS	SODIUM DISSOLVED	445	MG/L	0.1		10000
11105	NA_DIS	SODIUM DISSOLVED	479	MG/L			10000
11106	NA_DIS	SODIUM DISSOLVED	448	MG/L	1.0		10000
11107	NA_DIS	SODIUM DISSOLVED	445	MG/L			10000
11111	NA_DIS	SODIUM DISSOLVED	1516	MG/L	0.03		10000
11112	NA_DIS	SODIUM DISSOLVED	451	MG/L	0.01		10000
11115	NA_DIS	SODIUM DISSOLVED	1502	MG/L	0.001		10000
11311	NA_EXTR	SODIUM EXTRACTABLE	455	MG/L	1.0		5000
11321	NA_EXTR	SODIUM EXTRACTABLE	1526	UG/L	200		5000
11312	NA_EXTR	SODIUM EXTRACTABLE	2322	MG/L	1.00		1000
11330	NA_EXTR	SODIUM EXTRACTABLE	2346	MG/KG	4.0		
11250	NA_%	SODIUM PERCENTAGE (CALCD.)	454	%			
11451	NA_TOT	SODIUM TOTAL	1728	MG/L	0.05		10000
11001	NA_TOT	SODIUM TOTAL	438	MG/L			
11002	NA_TOT	SODIUM TOTAL	59	MG/L			
11005	NA_TOT	SODIUM TOTAL	440	MG/L	0.2		
11007	NA_TOT	SODIUM TOTAL	441	UG/L	0.03		
11050	NA_TOT	SODIUM TOTAL	58	MG/L	0.1		10000
99035	SORTING	SORTING	2291	PHI UNITS			5
02042	SPEC_COND	SPECIFIC CONDUCTANCE	33	USIE/CM			500000
02041	SPEC_COND	SPECIFIC CONDUCTANCE	32	USIE/CM			60000
02049	SPEC_COND	SPECIFIC CONDUCTANCE	36	USIE/CM			100000
02051	SPEC_COND_AMB_TEMP	SPECIFIC CONDUCTANCE AMB. TEMP.	37	USIE/CM			50000
00211	STAB_INDEX	STABILITY INDEX (CALCD.)	16	PH UNITS			
36900	BACT_DENS_COUNT_20DC	STD. PLATE COUNT 20DEG.C BACT. DENS.	1431	NO/ML	1		999999
36901	BACT_DENS_COUNT_20DC	STD. PLATE COUNT 20DEG.C BACT. DENS.	1432	1000/ML			
36905	BACT_DENS_COUNT_35DC	STD. PLATE COUNT 35DEG.C BACT. DENS.	1431	NO/ML	1		999999
36906	BACT_DENS_COUNT_35DC	STD. PLATE COUNT 35DEG.C BACT. DENS.	1434	1000/ML			
35910	BACT_DENS_COUNT	STD. PLATE COUNT BACT. DENS.	1431	NO/ML			
36915	BACT_DENS_COUNT	STD. PLATE COUNT BACT. DENS.	1431	NO/ML			
38101	SR_DIS	STRONTIUM DISSOLVED	479	MG/L	.02		10000
38109	SR_DIS	STRONTIUM DISSOLVED	1502	MG/L	.001		
38111	SR_DIS	STRONTIUM DISSOLVED	1516	UG/L	2		50000
38301	SR_EXTR	STRONTIUM EXTRACTABLE	479	MG/L	.02		10000
38311	SR_EXTR	STRONTIUM EXTRACTABLE	1502	MG/L	.001		
38321	SR_EXTR	STRONTIUM EXTRACTABLE	1526	UG/L	0.5		5000
38401	SR_EXTR	STRONTIUM EXTRACTABLE	82	MG/KG			1000
38601	SR_EXTR	STRONTIUM EXTRACTABLE	1529	MG/KG			
38201	SR_EXTR	STRONTIUM EXTRACTABLE	479	MG/L	.02		10000
38211	SR_EXTR	STRONTIUM EXTRACTABLE	1519	UG/L	2		50000
38330	SR_EXTR	STRONTIUM EXTRACTABLE	2346	MG/KG	0.01		
38502	SR_RAD	STRONTIUM RADIATION SR-90	1453	BQ/L			
38501	SR_RAD_TOT	STRONTIUM RADIATION TOTAL SR-90	1452	BQ/L			10
38001	SR_TOT	STRONTIUM TOTAL	479	MG/L	.02		10000
38009	SR_TOT	STRONTIUM TOTAL	1502	MG/L	.002		
38011	SR_TOT	STRONTIUM TOTAL	1503	UG/L	2		50000
38012	SR_TOT	STRONTIUM TOTAL	441	UG/L	0.003		
38050	SR_TOT	STRONTIUM TOTAL	58	MG/KG	20		
95223	100-42-5	STYRENE	2321	UG/L	1		500000
00037	100-42-5	STYRENE	2348	UG/L	0.5		500.00
99031	SUBSMPL_BOTTOM	SUBSAMPLE ANALYSED BOTTOM	2289	CM			1500
99029	SUBSMPL_TOP	SUBSAMPLE ANALYSED TOP	2288	CM			1500
16311	SO4	SULPHATE	619	MG/L	0.5		5000
16301	SO4_DIS	SULPHATE DISSOLVED	610	MG/L	1.0		5000
16302	SO4_DIS	SULPHATE DISSOLVED	611	MG/L			5000
16303	SO4_DIS	SULPHATE DISSOLVED	612	MG/L	1		5000
16304	SO4_DIS	SULPHATE DISSOLVED	613	MG/L			5000
16305	SO4_DIS	SULPHATE DISSOLVED	631	MG/L			5000
16306	SO4_DIS	SULPHATE DISSOLVED	615	MG/L	0.2		5000
16307	SO4_DIS	SULPHATE DISSOLVED	615	MG/L			5000
16309	SO4_DIS	SULPHATE DISSOLVED	617	MG/L	0.01		5000
16310	SO4_DIS	SULPHATE DISSOLVED	618	MG/L	0.5		5000

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VARIABLE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
16312	SO4_DIS	SULPHATE DISSOLVED	2309	MG/L	0.20		300
16313	SO4_DIS	SULPHATE DISSOLVED	2326	MG/L	.5		25
16102	S_DIS	SULPHIDE DISSOLVED	606	MG/L			
16103	S_DIS	SULPHIDE DISSOLVED	607	MG/L			
16104	S_DIS	SULPHIDE DISSOLVED	608	MG/L	.001		
16101	S_DIS	SULPHIDE DISSOLVED	2365	MG/L			
16401	S	SULPHUR	457	MG/KG			7
16001	S_TOT	SULPHUR TOTAL	2365	MG/L			
00223	SUM_MAJ_IONS	SUM MAJOR IONS (CALCD.)	17	MG/L			
00125	SUM_OF_AN	SUM OF ANIONS	4	MEQ/L			
00120	SUM_OF_CAT	SUM OF CATIONS	4	MEQ/L			
06551	TANNIN_LIGNIN	TANNIN AND LIGNIN LIG. SULPH.	164	MG/L	.1		1000000
06552	TANNIN_LIGNIN	TANNIN AND LIGNIN LIG. SULPH.	164	MG/L	.02		1000000
02090	TASTE_DESC	TASTE DESCRIPTIVE	55	NO UNITS			
96103	34014-18-1	TEBUTHIURON	1966	UG/L	1		500000
18290	3383-96-8	TEMEPHOS	786	UG/L			5000000
02401	TEMP	TEMPERATURE	56	DEG C			25
97060	TEMP_AIR	TEMPERATURE AIR	2182	DEG C			
97065	TEMP_SNOW	TEMPERATURE SNOW	2183	DEG C			
02061	TEMP_H2O	TEMPERATURE WATER	38	DEG C			60
02062	TEMP_H2O	TEMPERATURE WATER	39	DEG C			60
02065	TEMP_H2O	TEMPERATURE WATER	42	DEG C			60
02066	TEMP_H2O_EBT	TEMPERATURE WATER (EBT)	43	DEG C			
02063	TEMP_H2O_DEEP	TEMPERATURE WATER DEEPEST	40	DEG C			
02064	TEMP_H2O_UP	TEMPERATURE WATER UPPERMOST	40	DEG C			
93031	5902-51-2	TERBACIL	1759	UG/L	.25		200000
96306	127-18-4	TETRACHLOROETHYLENE	1947	NG/L	0.350		
95225	127-18-4	TETRACHLOROETHYLENE	2321	UG/L	3		500000
95120	127-18-4	TETRACHLOROETHYLENE	1867	UG/L	.2		500000
00029	127-18-4	TETRACHLOROETHYLENE	2348	UG/L	0.5		500.00
94022	22248-79-9	TETRACHLORVINPHOS	1781	UG/L	.15		200000
82639	PB(CH2CH3)4	TETRAETHYL LEAD	1665	UG/KG	15		50
82439	PB(CH2CH3)4	TETRAETHYL LEAD	1665	UG/KG	15000		5000
82625	PB(CH3)4	TETRAMETHYL LEAD	1662	UG/KG	15		50
82425	PB(CH3)4	TETRAMETHYL LEAD	1662	UG/KG	15000		5000
99023	TEXTR_MODFR	TEXTURAL MODIFIER	2285	DESCR CODE			9
81101	TL_DIS	THALLIUM DISSOLVED	479	MG/L	.1		10000
81301	TL_EXTR	THALLIUM EXTRACTABLE	479	MG/L	.1		10000
81302	TL_EXTR	THALLIUM EXTRACTABLE	479	MG/L			10000
81001	TL_TOT	THALLIUM TOTAL	479	MG/L	.1		10000
81002	TL_TOT	THALLIUM TOTAL	1617	MG/L			
81003	TL_TOT	THALLIUM TOTAL	479	MG/L			
81004	TL_TOT	THALLIUM TOTAL	481	MG/L			
81005	TL_TOT	THALLIUM TOTAL	1620	MG/L	.005		
99003	SED_SMPLR_THICKNESS	THICKNESS OF SEDIMENT SAMPLER	2275	CM			1500
16510	R'-S-R_TOT	THIO-SALTS TOTAL	622	MG/L			2000
16502	S2O3_TOT	THIOSULFATE TOTAL	621	MG/L			2000
90591	TH_RAD_230	THORIUM RADIATION TH-230	1683	BQ/L			100
90592	TH_RAD_232	THORIUM RADIATION TH-232	1683	BQ/L			100
90501	TH_RAD_232	THORIUM RADIATION TH-232	1681	BQ/L			10
90520	TH_RAD_TOT_227	THORIUM RADIATION TOTAL TH-227	1711	BQ/L	0.0074		
90515	TH_RAD_TOT_228	THORIUM RADIATION TOTAL TH-228	1711	BQ/L	0.0074		
90510	TH_RAD_TOT_230	THORIUM RADIATION TOTAL TH-230	1711	BQ/L	0.0037		
90502	TH_RAD_TOT_232	THORIUM RADIATION TOTAL TH-232	1711	BQ/L	0.0037		
90590	TH_TOT	THORIUM TOTAL	1683	UG/L			9999.99
90001	TH_TOT	THORIUM TOTAL	1711	UG/L	0.1		
90451	TH_TOT	THORIUM TOTAL	1712	UG/L	50		
50101	SN_DIS	TIN DISSOLVED	1161	MG/L	.001		10000
50102	SN_DIS	TIN DISSOLVED	1183	MG/L			10000
50111	SN_DIS	TIN DISSOLVED	1516	UG/L	8		50000
50302	SN_EXTR	TIN EXTRACTABLE	1183	MG/L			10000
50401	SN_EXTR	TIN EXTRACTABLE	82	MG/KG			100000
50211	SN_EXTR	TIN EXTRACTABLE	1519	UG/L	8		50000
50301	SN_EXTR	TIN EXTRACTABLE	479	MG/L	.001		10000
50005	SN_TOT	TIN TOTAL	1170	MG/L			
50006	SN_TOT	TIN TOTAL	1532	MG/L			
50009	SN_TOT	TIN TOTAL	1502	MG/L	.008		
50011	SN_TOT	TIN TOTAL	1503	UG/L	8		50000
22401	TIO2	TIC2	457	%			2
22111	TI_DIS	TITANIUM DISSOLVED	1516	UG/L	1		50
22211	TI_EXTR	TITANIUM EXTRACTABLE	1519	UG/L	1		50
22009	TI_TOT	TITANIUM TOTAL	1502	MG/L	0.001		
22011	TI_TOT	TITANIUM TOTAL	1503	UG/L	1		50
95121	108-88-3	TOLUENE	1867	UG/L	.1		500000
95226	108-88-3	TOLUENE	2321	UG/L	1		
00035	108-88-3	TOLUENE	2348	UG/L	0.5		500.00
99512	108-88-3	TOLUENE	2352	UG/KG	10		

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VARIABLE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
99011	UNIT_TOP	TOP OF UNIT	2279	CM			
54001	ALGAL_GROWTH_POT_TOT	TOTAL ALGAL GROWTH POTENTIAL	1557	CELLS/ML			
54010	ALGAL_GROWTH_POT_TOT	TOTAL ALGAL GROWTH POTENTIAL	1558	MG/L DR WT			
00206	TDS	TOTAL DISSOLVED SOLIDS	13	MG/L			
00207	TDS	TOTAL DISSOLVED SOLIDS	14	MG/L			
00201	TDS_CALC	TOTAL DISSOLVED SOLIDS (CALCD.)	8	MG/L			
00202	TDS_CALC	TOTAL DISSOLVED SOLIDS (CALCD.)	9	MG/L			
00203	TDS_CALC	TOTAL DISSOLVED SOLIDS (CALCD.)	10	MG/L			
00204	TDS_CALC	TOTAL DISSOLVED SOLIDS (CALCD.)	11	MG/L			
00205	TDS_CALC	TOTAL DISSOLVED SOLIDS (CALCD.)	12	MG/L			
00267	37871-00-4	TOTAL_HEPTA_CDD	2323	NG/KG	10.0		
00255	37871-00-4	TOTAL_HEPTA_CDD	2324	NG/KG	10.0		
00279	37871-00-4	TOTAL_HEPTA_CDD	2325	PG/L	10.0		
00273	38998-75-3	TOTAL_HEPTA_CDF	2323	NG/KG	10.0		
00261	38998-75-3	TOTAL_HEPTA_CDF	2324	NG/KG	10.0		
00285	38998-75-3	TOTAL_HEPTA_CDF	2325	PG/L	10.0		
00266	34465-46-8	TOTAL_HEXA_CDD	2323	NG/KG	5.0		
00254	34465-46-8	TOTAL_HEXA_CDD	2324	NG/KG	7.0		
00278	34465-46-8	TOTAL_HEXA_CDD	2325	PG/L	8.0		
00272	55684-94-1	TOTAL_HEXA_CDF	2323	NG/KG	5.0		
00260	55684-94-1	TOTAL_HEXA_CDF	2324	NG/KG	7.0		
00284	55684-94-1	TOTAL_HEXA_CDF	2325	PG/L	8.0		
00265	36088-22-9	TOTAL_PENTA_CDD	2323	NG/KG	3.0		
00253	36088-22-9	TOTAL_PENTA_CDD	2324	NG/KG	5.0		
00277	36088-22-9	TOTAL_PENTA_CDD	2325	PG/L	8.0		
00271	30402-15-4	TOTAL_PENTA_CDF	2323	NG/KG	3.0		
00259	30402-15-4	TOTAL_PENTA_CDF	2324	NG/KG	5.0		
00283	30402-15-4	TOTAL_PENTA_CDF	2325	PG/L	8.0		
00264	41903-57-5	TOTAL_TETRA_CDD	2323	NG/KG	2.0		
00252	41903-57-5	TOTAL_TETRA_CDD	2324	NG/KG	3.0		
00276	41903-57-5	TOTAL_TETRA_CDD	2325	PG/L	5.0		
00270	55722-27-5	TOTAL_TETRA_CDF	2323	NG/KG	2.0		
00258	55722-27-5	TOTAL_TETRA_CDF	2324	NG/KG	3.0		
00282	55722-27-5	TOTAL_TETRA_CDF	2325	PG/L	5.0		
95217	156-60-5	TRANS-1,2-DICHLOROETHENE	2321	UG/L	1		500000
95113	156-60-5	TRANS-1,2-DICHLOROETHENE	1867	UG/L	.5		500000
00025	156-60-5	TRANS-1,2-DICHLOROETHENE	2348	UG/L	0.5		500.00
95220	10061-02-6	TRANS-1,3-DICHLOROPROPENE	2321	UG/L	3		500000
95116	10061-02-6	TRANS-1,3-DICHLOROPROPENE	1867	UG/L	.5		500000
00030	10061-02-6	TRANS-1,3-DICHLOROPROPENE	2348	UG/L	1.0		500.00
93028	2303-17-5	TRIALLATE	1730	UG/L	.04		100000
18363	2303-17-5	TRIALLATE	882	UG/L	.01		
95183	2303-17-5	TRIALLATE	2300	UG/L	1.0		
96905	2303-17-5	TRIALLATE	2339	NG/G	0.20		
96112	2303-17-5	TRIALLATE	2344	NG/L	0.7		
95402	2303-17-5	TRIALLATE	2366	NG/G	2		
18417	TRIA-100	TRIAZINES TOTAL (CALCD.)	903	UG/L			
18380	76-03-9	TRICHLOROACETIC ACID	886	UG/L	.05		10000
95231	79-01-6	TRICHLOROETHYLENE	2321	UG/L	1		500000
95124	79-01-6	TRICHLOROETHYLENE	1867	UG/L	.2		500000
00027	79-01-6	TRICHLOROETHYLENE	2348	UG/L	0.5		500.00
95229	75-69-4	TRICHLOROFLUOROMETHANE	2321	UG/L	1		500000
00009	75-69-4	TRICHLOROFLUOROMETHANE	2348	UG/L	2.0		500.00
82639	PB(CH2CH3)3	TRIETHYL LEAD	1664	UG/KG	15		50
82438	PB(CH2CH3)3	TRIETHYL LEAD	1664	UG/KG	15000		5000
93032	1582-09-8	TRIFLURALIN	1759	UG/L	.1		200000
18370	1582-09-8	TRIFLURALIN	843	UG/L	.005		10000
95264	1582-09-8	TRIFLURALIN	2301	UG/L	0.03		
95184	1582-09-8	TRIFLURALIN	2300	UG/L	0.50		
96903	1582-09-8	TRIFLURALIN	2339	NG/G	0.20		
96110	1582-09-8	TRIFLURALIN	2344	NG/L	0.4		
95400	1582-09-8	TRIFLURALIN	2366	NG/G	1		
17401	TRIHALOMETHANES	TRIHALOMETHANES	636	UG/L			500000
82653	PB(CH3)3CH2CH3	TRIMETHYL ETHYL LEAD	1666	UG/KG	15		50
82453	PB(CH3)3CH2CH3	TRIMETHYL ETHYL LEAD	1666	UG/KG	15000		5000
82624	PB(CH3)3	TRIMETHYL LEAD	1661	UG/KG	15		50
82424	PB(CH3)3	TRIMETHYL LEAD	1661	UG/KG	15000		5000
18922	217-59-4	TRIPHENYLENE	982	UG/L	.0003		
18932	217-59-4	TRIPHENYLENE	1007	MG/KG	.02		
01501	H3_RAD	TRITIUM RADIATION H-3	19	BQ/L			
01502	H3_RAD	TRITIUM RADIATION H-3	20	BQ/L			
74301	W_EXTR	TUNGSTEN EXTRACTABLE	479	MG/L	.01		10000
02071	TURBID	TURBIDITY	44	JTU			1000.1
02072	TURBID	TURBIDITY	45	JTU			1000.1
02073	TURBID	TURBIDITY	46	JTU			2000
02074	TURBID	TURBIDITY	47	NTU			
02081	TURBID	TURBIDITY	54	NTU			1000

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VARIABLE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
97081	TURBID_SITE	TURBIDITY (VISUAL) AT SITE	2356	DESCR CODE			
97080	TURBID_SMPL	TURBIDITY (VISUAL) IN SAMPLE	2188	DESCR CODE			
02077	TURBID_FORMAZIN	TURBIDITY FORMAZIN	46	FZN UNITS			1000.1
02075	TURBID_SECCHI_DSC	TURBIDITY LIGHT PENETRN. SECCHI DSC.	48	M			100
02076	TURBID_SECCHI_DSC	TURBIDITY LIGHT PENETRN. SECCHI DSC.	49	M			100
02078	TURBID_SECCHI_DSC	TURBIDITY LIGHT PENETRN. SECCHI DSC.	51	M			
99009	SMPL_SED_UNITNO	UNIT NUMBER OF SEDIMENT SAMPLE OR CORE	2278	DESCR CODE			
92101	U_DIS	URANIUM DISSOLVED	1722	MG/L			1
92111	U_DIS	URANIUM DISSOLVED	1723	UG/L			10
92112	U_DIS	URANIUM DISSOLVED	1724	UG/L	0.1		100
92190	U_DIS	URANIUM DISSOLVED	1683	UG/L			100000
92001	U_TOT	URANIUM TOTAL	1721	UG/L	0.001		
92115	U_TOT	URANIUM TOTAL	1725	UG/L			10000
92191	U_TOT	URANIUM TOTAL	1683	UG/L			100000
92451	U_TOT	URANIUM TOTAL	1728	UG/L	10		
92601	U_TOT	URANIUM TOTAL	1721	UG/G	0.001		
07721	UREA	UREA	311	MG/L	0.01		20
07722	UREA	UREA	311	MG/L	0.004		1
23401	V	VANADIUM	82	MG/L			300
23101	V_DIS	VANADIUM DISSOLVED	1098	MG/L	.05		10000
23102	V_DIS	VANADIUM DISSOLVED	1095	MG/L	.0005		5000
23109	V_DIS	VANADIUM DISSOLVED	1502	MG/L	.001		
23111	V_DIS	VANADIUM DISSOLVED	1516	UG/L	2		5000
23403	V_EXTR	VANADIUM EXTRACTABLE	2346	MG/KG	0.01		
23201	V_EXTR	VANADIUM EXTRACTABLE	1098	MG/L	.05		10000
23202	V_EXTR	VANADIUM EXTRACTABLE	1095	MG/L	.0005		5000
23211	V_EXTR	VANADIUM EXTRACTABLE	1519	UG/L	2		5000
23301	V_EXTR	VANADIUM EXTRACTABLE	1098	MG/L	.05		10000
23302	V_EXTR	VANADIUM EXTRACTABLE	1095	MG/L	.0005		50000
23303	V_EXTR	VANADIUM EXTRACTABLE	1107	MG/L	.002		
23311	V_EXTR	VANADIUM EXTRACTABLE	1502	MG/L	.001		
23321	V_EXTR	VANADIUM EXTRACTABLE	1526	UG/L	1		1000
99509	V_EXTR	VANADIUM EXTRACTABLE	2346	MG/KG	0.01		
23009	V_TOT	VANADIUM TOTAL	1502	MG/L	.002		
23011	V_TOT	VANADIUM TOTAL	1503	UG/L	2		50
23012	V_TOT	VANADIUM TOTAL	441	UG/L	0.02		
23050	V_TOT	VANADIUM TOTAL	58	MG/KG	50.0		
23053	V_TOT	VANADIUM TOTAL	486	MG/KG	5		150
23001	V_TOT	VANADIUM TOTAL	1089	MG/L	.05		10000
23002	V_TOT	VANADIUM TOTAL	1090	MG/L	.0005		10000
23003	V_TOT	VANADIUM TOTAL	1091	MG/L	.002		
23330	V_TOT	VANADIUM TOTAL	1520	MG/L	0.01		2.500
23020	V_TOT_REC	VANADIUM TOTAL RECOVERABLE	1095	MG/L	.001		
95232	75-01-4	VINYL CHLORIDE	2321	UG/L	1		500000
00023	75-01-4	VINYL CHLORIDE	2348	UG/L	5.0		500.00
00159	VOL	VOLUME	6	ML	1.0		
97162	H2O_CONSUMP	WATER CONSMPTN. DAILY	2365	1000 GAL/D			1000
97001	DEPTH	WATER DEPTH	2176	M			99999.9
97020	WATER_TAB_DEPTH	WATER TABLE DEPTH	2180	M			
97950	WATERSHED	WATERSHED AREA	2257	KM2			9999.99
98070	WEED_LOCTN	WEED LOCATION	2271	DESCR CODE			
98035	WEED_SITE	WEEDS PRESENCE AT SITE	2268	DESCR CODE			
97050	WIND_VEL	WIND VELOCITY	2181	KM/HR			
97900	WSC_STATN	WSC REFERENCE STATION	2255	NO UNITS			
30101	ZN_DIS	ZINC DISSOLVED	1337	MG/L	.01		25000
30102	ZN_DIS	ZINC DISSOLVED	1296	MG/L			50000
30103	ZN_DIS	ZINC DISSOLVED	1339	MG/L	.01		25000
30104	ZN_DIS	ZINC DISSOLVED	479	MG/L	.01		5000000
30105	ZN_DIS	ZINC DISSOLVED	1183	MG/L	.001		300000
30107	ZN_DIS	ZINC DISSOLVED	481	MG/L			20000
30108	ZN_DIS	ZINC DISSOLVED	1183	MG/L	.001		10000
30109	ZN_DIS	ZINC DISSOLVED	1502	MG/L	.001		
30111	ZN_DIS	ZINC DISSOLVED	1516	UG/L	2		50000
30204	ZN_EXTR	ZINC EXTRACTABLE	479	MG/L	.01		25000
30205	ZN_EXTR	ZINC EXTRACTABLE	1183	MG/L	.001		10000
30211	ZN_EXTR	ZINC EXTRACTABLE	1519	UG/L	2		50000
30301	ZN_EXTR	ZINC EXTRACTABLE	1337	MG/L	.01		10000
30303	ZN_EXTR	ZINC EXTRACTABLE	1350	MG/L	.01		100000
30304	ZN_EXTR	ZINC EXTRACTABLE	479	MG/L	.01		1000000
30305	ZN_EXTR	ZINC EXTRACTABLE	1183	MG/L	.001		100000
30306	ZN_EXTR	ZINC EXTRACTABLE	481	MG/L			100000
30307	ZN_EXTR	ZINC EXTRACTABLE	1354	MG/L	.001		100000
30309	ZN_EXTR	ZINC EXTRACTABLE	504	MG/L	.0005		1000
30311	ZN_EXTR	ZINC EXTRACTABLE	1502	MG/L	.001		
30321	ZN_EXTR	ZINC EXTRACTABLE	1526	UG/L	1		1000
30401	ZN_EXTR	ZINC EXTRACTABLE	1277	MG/KG			60000
30402	ZN_EXTR	ZINC EXTRACTABLE	82	MG/KG			5000

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VARIABLE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
30601	ZN_EXTR	ZINC EXTRACTABLE	1529	MG/KG	0.2		100
30312	ZN_EXTR	ZINC EXTRACTABLE	2322	MG/L	0.01		50.0
30330	ZN_EXTR	ZINC EXTRACTABLE	2346	MG/KG	0.01		
30054	ZN_NON-RES	ZINC NON-RES	487	MG/KG	0.1		2000
30053	ZN_TOT	ZINC TOTAL	486	MG/KG	5		10000
30001	ZN_TOT	ZINC TOTAL	458	MG/L			
30003	ZN_TOT	ZINC TOTAL	481	MG/L			
30004	ZN_TOT	ZINC TOTAL	479	MG/L	.01		50000
30005	ZN_TOT	ZINC TOTAL	1183	MG/L	.001		10000
30006	ZN_TOT	ZINC TOTAL	479	MG/L	.001		2500
30007	ZN_TOT	ZINC TOTAL	1183	MG/L	.001		10000
30008	ZN_TOT	ZINC TOTAL	479	MG/L			
30009	ZN_TOT	ZINC TOTAL	1502	MG/L	.002		
30011	ZN_TOT	ZINC TOTAL	1503	UG/L	2		50000
30012	ZN_TOT	ZINC TOTAL	441	UG/L	0.06		
30050	ZN_TOT	ZINC TOTAL	58	MG/KG	10		
30051	ZN_TOT	ZINC TOTAL	1226	MG/KG	20		1000
30052	ZN_TOT	ZINC TOTAL	1508	MG/KG	30		
30501	ZN_TOT	ZINC TOTAL	1520	MG/L	0.01		2.500
30020	ZN_TOT_REC	ZINC TOTAL RECOVERABLE	1224	MG/L	.001		

2792 records selected.

VMV CODES ORDERED BY VMV CODE

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VMV CODE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
00001	74-87-3	CHLOROMETHANE	2348	UG/L	5.0		500.00
00002	74-83-9	BROMOMETHANE	2348	UG/L	2.0		500.00
00003	75-09-2	METHYLENE CHLORIDE	2348	UG/L	1.0		500.00
00004	67-66-3	CHLOROFORM	2348	UG/L	0.5		500.00
00005	75-27-4	DICHLOROBROMOMETHANE	2348	UG/L	1.0		500.00
00006	124-48-1	DIBROMOCHLOROMETHANE	2348	UG/L	2.0		500.00
00007	75-25-2	BROMOFORM	2348	UG/L	2.0		500.00
00008	75-43-4	DICHLOROFLUOROMETHANE	2348	UG/L	5.0		500.00
00009	75-69-4	TRICHLOROFLUOROMETHANE	2348	UG/L	2.0		500.00
00010	56-23-5	CARBON TETRACHLORIDE	2348	UG/L	0.5		500.00
00011	75-00-3	CHLOROETHANE	2348	UG/L	5.0		500.00
00012	75-34-3	1,1-DICHLOROETHANE	2348	UG/L	0.5		500.00
00013	107-06-2	1,2-DICHLOROETHANE	2348	UG/L	1.0		500.00
00014	71-55-6	1,1,1-TRICHLOROETHANE	2348	UG/L	0.5		500.00
00015	79-00-5	1,1,2-TRICHLOROETHANE	2348	UG/L	2.0		500.00
00016	79-34-5	1,1,2,2-TETRACHLOROETHANE	2348	UG/L	2.0		500.00
00017	107-04-0	1-BROMO-2-CHLOROETHANE	2348	UG/L	2.0		500.00
00018	106-93-4	1,2-DIBROMOETHANE	2348	UG/L	2.0		500.00
00019	76-01-7	PENTACHLOROETHANE	2348	UG/L	1.0		500.00
00020	67-72-1	HEXACHLOROETHANE	2348	UG/L	1.0		500.00
00021	76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUORO-ETHANE	2348	UG/L	2.0		500.00
00022	78-87-5	1,2-DICHLOROPROPANE	2348	UG/L	1.0		500.00
00023	75-01-4	VINYL CHLORIDE	2348	UG/L	5.0		500.00
00024	75-35-4	1,1-DICHLOROETHYLENE	2348	UG/L	1.0		500.00
00025	156-60-5	TRANS-1,2-DICHLOROETHENE	2348	UG/L	0.5		500.00
00026	156-59-2	CIS-1,2-DICHLOROETHENE	2348	UG/L	0.5		500.00
00027	79-01-6	TRICHLOROETHYLENE	2348	UG/L	0.5		500.00
00028	127-18-4	TETRACHLOROETHYLENE	2348	UG/L	0.5		500.00
00029	107-05-1	3-CHLOROPROPENE	2348	UG/L	2.0		500.00
00030	10061-02-6	TRANS-1,3-DICHLOROPROPENE	2348	UG/L	1.0		500.00
00031	10061-01-5	CIS-1,3-DICHLOROPROPENE	2348	UG/L	1.0		500.00
00032	78-88-6	2,3-DICHLOROPROPENE	2348	UG/L	2.0		500.00
00033	10436-39-2	1,1,2,3_TETRACHLOROPROPENE	2348	UG/L	2.0		500.00
00034	71-43-2	BENZENE	2348	UG/L	0.5		500.00
00035	108-88-3	TOLUENE	2348	UG/L	0.5		500.00
00036	100-41-4	ETHYL BENZENE	2348	UG/L	0.5		500.00
00037	100-42-5	STYRENE	2348	UG/L	0.5		500.00
00038	95-47-6	O-XYLENE	2348	UG/L	0.5		500.00
00039	1330-20-7	M- + P-XYLENE	2348	UG/L	0.5		500.00
00040	98-82-8	ISOPROPYLBENZENE	2348	UG/L	0.2		500.00
00041	103-65-1	N-PROPYLBENZENE	2348	UG/L	0.2		500.00
00042	25550-14-5	1_ETHYL_3(4)_METHYLBENZENE	2348	UG/L	0.2		500.00
00043	611-14-3	1_ETHYL_2_METHYLBENZENE	2348	UG/L	0.2		500.00
00044	108-68-8	1,3,5-TRIMETHYLBENZENE	2348	UG/L	0.2		500.00
00045	95-63-6	1,2,4-TRIMETHYLBENZENE	2348	UG/L	0.2		500.00
00046	526-73-8	1,2,3-TRIMETHYLBENZENE	2348	UG/L	0.2		500.00
00047	141-93-5	1,3_DIETHYLBENZENE	2348	UG/L	0.2		500.00
00048	105-05-5	1,4_DIETHYLBENZENE	2348	UG/L	0.2		500.00
00049	95-50-1	1,2-DICHLOROBENZENE	2348	UG/L	0.2		500.00
00050	108-90-7	CHLOROBENZENE	2348	UG/L	0.5		500.00
00051	108-86-1	BROMOBENZENE	2348	UG/L	1.0		500.00
00052	95-50-1	1,2-DICHLOROBENZENE	2348	UG/L	0.5		500.00
00053	541-73-1	1,3-DICHLOROBENZENE	2348	UG/L	0.5		500.00
00054	106-46-7	1,4-DICHLOROBENZENE	2348	UG/L	0.5		500.00
00055	120-82-1	1,2,4-TRICHLOROBENZENE	2348	UG/L	1.0		500.00
00056	110-75-8	2-CHLOROETHYLVINYLETHER	2348	UG/L	2.0		500.00
00057	107-02-8	ACROLEIN	2348	UG/L	25.0		500.00
00058	107-13-1	ACRYLONITRILE	2348	UG/L	10.0		500.00
00059	3018-12-0	DICHLOROACETONITRILE	2348	UG/L	15.0		500.00
00060	123-91-1	1,4-DIOXANE	2348	UG/L	500.0		
00061	87-68-3	HEXACHLOROBUTADIENE	2348	UG/L	1.0		500.00
00062	CS2	CARBON DISULFIDE	2348	UG/L	5.0		500.00
00063	74-95-3	DIBROMOMETHANE	2348	UG/L	350		500.00
00100	ION_BAL_DIFF_CALC	IONIC BALANCE DIFFERENCE (CALCD.)	1	%			
00105	ION_BAL_ERR	IONIC BALANCE ERROR	1	%			
00106	ION_BAL_ERR_CALC	IONIC BALANCE ERROR (CALCD.)	1	%			
00110	ION_BAL	IONIC BALANCE	1	%			
00111	ION_BAL_CALC	IONIC BALANCE (CALCD.)	2355	MEQ/L			
00120	SUM_OF_CAT	SUM OF CATIONS	4	MEQ/L			
00125	SUM_OF_AN	SUM OF ANIONS	4	MEQ/L			
00150	VOL	VOLUME	6	ML	1.0		
00190	SAMPL_METH_DESC	SAMPLING METHOD DESCRIPTIVE	7	NO UNITS			
00201	TDS_CALC	TOTAL DISSOLVED SOLIDS (CALCD.)	8	MG/L			
00202	TDS_CALC	TOTAL DISSOLVED SOLIDS (CALCD.)	9	MG/L			
00203	TDS_CALC	TOTAL DISSOLVED SOLIDS (CALCD.)	10	MG/L			
00204	TDS_CALC	TOTAL DISSOLVED SOLIDS (CALCD.)	11	MG/L			
00205	TDS_CALC	TOTAL DISSOLVED SOLIDS (CALCD.)	12	MG/L			

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VMV CODE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
00206	TDS	TOTAL DISSOLVED SOLIDS	13	MG/L			
00207	TDS	TOTAL DISSOLVED SOLIDS	14	MG/L			
00210	SATUR_INDEX	SATURATION INDEX (CALCD.)	15	PH UNITS			
00211	STAB_INDEX	STABILITY INDEX (CALCD.)	16	PH UNITS			
00223	SUM_MAJ_IONS	SUM MAJOR IONS (CALCD.)	17	MG/L			
00250	LIPIDS_TOT	LIPIDS TOTAL	2353	%	0.1		
00251	1746-01-6	2,3,7,8-TCDD	2324	NG/KG	3.0		
00252	41903-57-5	TOTAL_TETRA_CDD	2324	NG/KG	3.0		
00253	36088-22-9	TOTAL_PENTA_CDD	2324	NG/KG	5.0		
00254	34465-46-8	TOTAL_HEXA_CDD	2324	NG/KG	7.0		
00255	37871-00-4	TOTAL_HEPTA_CDD	2324	NG/KG	10.0		
00256	3268-87-9	OCTA_CDD	2324	NG/KG	15.0		
00257	51207-31-9	2,3,7,8_TCDF	2324	NG/KG	3.0		
00258	55722-27-5	TOTAL_TETRA_CDF	2324	NG/KG	3.0		
00259	30402-15-4	TOTAL_PENTA_CDF	2324	NG/KG	5.0		
00260	55684-94-1	TOTAL_HEXA_CDF	2324	NG/KG	7.0		
00261	38998-75-3	TOTAL_HEPTA_CDF	2324	NG/KG	10.0		
00262	39001-02-0	OCTA_CDF	2324	NG/KG	15.0		
00263	1746-01-6	2,3,7,8-TCDD	2323	NG/KG	2.0		
00264	41903-57-5	TOTAL_TETRA_CDD	2323	NG/KG	2.0		
00265	36088-22-9	TOTAL_PENTA_CDD	2323	NG/KG	3.0		
00266	34465-46-8	TOTAL_HEXA_CDD	2323	NG/KG	5.0		
00267	37871-00-4	TOTAL_HEPTA_CDD	2323	NG/KG	10.0		
00268	3268-87-9	OCTA_CDD	2323	NG/KG	15.0		
00269	51207-31-9	2,3,7,8_TCDF	2323	NG/KG	2.0		
00270	55722-27-5	TOTAL_TETRA_CDF	2323	NG/KG	2.0		
00271	30402-15-4	TOTAL_PENTA_CDF	2323	NG/KG	3.0		
00272	55684-94-1	TOTAL_HEXA_CDF	2323	NG/KG	5.0		
00273	38998-75-3	TOTAL_HEPTA_CDF	2323	NG/KG	10.0		
00274	39001-02-0	OCTA_CDF	2323	NG/KG	15.0		
00275	1746-01-6	2,3,7,8-TCDD	2325	PG/L	5.0		
00276	41903-57-5	TOTAL_TETRA_CDD	2325	PG/L	5.0		
00277	36088-22-9	TOTAL_PENTA_CDD	2325	PG/L	8.0		
00278	34465-46-8	TOTAL_HEXA_CDD	2325	PG/L	8.0		
00279	37871-00-4	TOTAL_HEPTA_CDD	2325	PG/L	10.0		
00280	3268-87-9	OCTA_CDD	2325	PG/L	15.0		
00281	51207-31-9	2,3,7,8_TCDF	2325	PG/L	5.0		
00282	55722-27-5	TOTAL_TETRA_CDF	2325	PG/L	5.0		
00283	30402-15-4	TOTAL_PENTA_CDF	2325	PG/L	8.0		
00284	55684-94-1	TOTAL_HEXA_CDF	2325	PG/L	8.0		
00285	38998-75-3	TOTAL_HEPTA_CDF	2325	PG/L	10.0		
00286	39001-02-0	OCTA_CDF	2325	PG/L	15.0		
00287	7421-93-4	ENDRIN ALDEHYDE	2302	NG/G	4.2		
00288	77-47-4	HEXACHLOROCYCLOPENTADIENE	2302	NG/G	1.8		
00289	39801-14-4	PHOTOMIREX	2302	NG/L	4.1		
00290	91-20-3	NAPHTHALENE	2303	NG/G	82		
00291	91-57-6	2-METHYLNAPHTHALENE	2303	NG/G	281		
00292	90-12-0	1-METHYLNAPHTHALENE	2303	NG/G	80		
00293	91-58-7	2-CHLORONAPHTHALENE	2303	NG/G	378		
00294	208-96-8	ACENAPHTHYLENE	2303	NG/G	89		
00295	86-73-7	FLUORENE	2303	NG/G	160		
00296	85-01-8	PHENANTHRENE	2303	NG/G	193		
00297	120-12-7	ANTHRACENE	2303	NG/G	169		
00298	193-39-5	INDENO(1,2,3-C,D)PYRENE	2303	NG/G	151		
00299	53-70-3	DIBENZ(A,H)ANTHRACENE	2303	NG/G	148		
00300	191-24-2	BENZO(G,H,I)PERYLENE	2303	NG/G	149		
00301	131-11-3	DIMETHYL PHTHALATE	2303	NG/G	204		
00302	84-66-2	DIETHYL PHTHALATE	2303	NG/G	1382		
00303	84-74-2	DI-N-BUTYL PHTHALATE	2303	NG/G	368		
00304	85-68-7	BUTYLBENZYL PHTHALATE	2303	NG/G	416		
00305	1912-24-9	ATRAZINE	2303	NG/G	956		
00306	51218-45-2	METOLACHLOR	2303	NG/G	441		
01000	H2S	HYDROGEN SULFIDE H2S	18	MG/L			
01501	H3_RAD	TRITIUM RADIATION H-3	19	BQ/L			
01502	H3_RAD	TRITIUM RADIATION H-3	20	BQ/L			
02001	ODOUR_THRES	ODOUR THRESHOLD NUMBER	21	T.O.N.			200
02011	COLOR_APP	COLOUR APPARENT	24	REL UNITS			1001
02015	COLOR_APP	COLOUR APPARENT	2330	REL UNITS	1		1000
02017	COLOR_APP	COLOUR APPARENT	24	REL UNITS			500
02018	COLOR_APP_ALPHA	COLOUR APPARENT ALPHA	2357	REL UNITS			
02021	COLOR_TRUE	COLOUR TRUE	24	REL UNITS			500
02022	COLOR_TRUE	COLOUR TRUE	25	REL UNITS			
02023	COLOR	COLOUR	26	REL UNITS			
02024	COLOR_TRUE	COLOUR TRUE	27	REL UNITS			
02025	COLOR_TRUE_HAZEN	COLOUR TRUE HAZEN	28	HZN UNITS			3000
02026	COLOR_TRUE_TRANS	COLOUR TRUE TRANSMIT.	29	% T			500
02027	COLOR_TRUE_HAZEN	COLOUR TRUE HAZEN	28	HZN UNITS			1000

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VMV CODE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
02031	REDOX_POT	REDOX POTENTIAL	31	MV			
02041	SPEC_COND	SPECIFIC CONDUCTANCE	32	USIE/CM			60000
02042	SPEC_COND	SPECIFIC CONDUCTANCE	33	USIE/CM			500000
02045	CONDUCT_THEO	CONDUCTIVITY THEORETICAL	34	USIE/CM			
02046	CONDUCT_THEO_ERR	CONDUCTIVITY THEORETICAL ERROR	34	%			
02047	CONDUCT_THEO_CALC	CONDUCTIVITY THEORETICAL (CALCD.)	2355	USIE/CM			
02048	CONDUCT_THEO_ERR_CAL	CONDUCTIVITY THEORETICAL ERROR (CALCD.)	2355	%			
02049	SPEC_COND	SPECIFIC CONDUCTANCE	36	USIE/CM			100000
02051	SPEC_COND_AMB_TEMP	SPECIFIC CONDUCTANCE AMB. TEMP.	37	USIE/CM			50000
02061	TEMP_H2O	TEMPERATURE WATER	38	DEG C			60
02062	TEMP_H2O	TEMPERATURE WATER	39	DEG C			60
02063	TEMP_H2O_DEEP	TEMPERATURE WATER DEEPEST	40	DEG C			
02064	TEMP_H2O_UP	TEMPERATURE WATER UPPERMOST	40	DEG C			
02065	TEMP_H2O	TEMPERATURE WATER	42	DEG C			60
02066	TEMP_H2O_EBT	TEMPERATURE WATER (EBT)	43	DEG C			
02071	TURBID	TURBIDITY	44	JTU			1000.1
02072	TURBID	TURBIDITY	45	JTU			1000.1
02073	TURBID	TURBIDITY	46	JTU			2000
02074	TURBID	TURBIDITY	47	NTU			
02075	TURBID_SECCHI_DSC	TURBIDITY LIGHT PENETRN. SECCHI DSC.	48	M			100
02076	TURBID_SECCHI_DSC	TURBIDITY LIGHT PENETRN. SECCHI DSC.	49	M			100
02077	TURBID_FORMAZIN	TURBIDITY FORMAZIN	46	FZN UNITS			1000.1
02078	TURBID_SECCHI_DSC	TURBIDITY LIGHT PENETRN. SECCHI DSC.	51	M			
02079	LIGHT_INTENS	LIGHT INTENSITY	52	FT CANDLES			
02080	LIGHT_INTENS	LIGHT INTENSITY	53	VEC			
02081	TURBID	TURBIDITY	54	NTU			1000
02090	TASTE_DESC	TASTE DESCRIPTIVE	55	NO UNITS			
02401	TEMP	TEMPERATURE	56	DEG C			25
02431	EH	EH	57	MV			500
03001	LI_TOT	LITHIUM TOTAL	58	MG/L	.005		2000
03002	LI_TOT	LITHIUM TOTAL	59	MG/L			2000
03009	LI_TOT	LITHIUM TOTAL	64	MG/L			2000
03050	LI_TOT	LITHIUM TOTAL	58	MG/L	.005		
03101	LI_DIS	LITHIUM DISSOLVED	58	MG/L	.005		2000
03102	LI_DIS	LITHIUM DISSOLVED	59	MG/L			2000
03109	LI_DIS	LITHIUM DISSOLVED	64	MG/L	.1		2000
03301	LI_EXTR	LITHIUM EXTRACTABLE	58	MG/L	.005		2000
03309	LI_EXTR	LITHIUM EXTRACTABLE	64	MG/L			2000
03311	LI_EXTR	LITHIUM EXTRACTABLE	1526	MG/L	.001		2000
03330	LI_EXTR	LITHIUM EXTRACTABLE	2346	MG/KG	0.02		
04001	BE_TOT	BERYLLIUM TOTAL	58	MG/L	.01		10000
04002	BE_TOT	BERYLLIUM TOTAL	69	MG/L	.001		10000
04009	BE_TOT	BERYLLIUM TOTAL	1502	MG/L	.001		10000
04010	BE_TOT	BERYLLIUM TOTAL	1502	UG/L	0.05		10000
04059	BE_TOT	BERYLLIUM TOTAL	58	MG/L	.01		10000
04052	BE_EXTR	BERYLLIUM EXTRACTABLE	2346	MG/KG	0.004		
04101	BE_DIS	BERYLLIUM DISSOLVED	58	MG/L	.01		1000
04102	BE_DIS	BERYLLIUM DISSOLVED	69	MG/L	.001		1000
04103	BE_DIS	BERYLLIUM DISSOLVED	1502	MG/L			1000
04111	BE_DIS	BERYLLIUM DISSOLVED	1516	UG/L	1		1000
04301	BE_EXTR	BERYLLIUM EXTRACTABLE	77	MG/L	.01		10000
04302	BE_EXTR	BERYLLIUM EXTRACTABLE	69	MG/L	.001		10000
04304	BE_EXTR	BERYLLIUM EXTRACTABLE	79	MG/L	.001		10000
04310	BE_EXTR	BERYLLIUM EXTRACTABLE	80	UG/L			10000
04311	BE_EXTR	BERYLLIUM EXTRACTABLE	1502	UG/L	0.2		1000
04330	BE_TOT	BERYLLIUM TOTAL	1520	MG/L	0.01		2.500
04401	BE_EXTR	BERYLLIUM EXTRACTABLE	82	MG/L			10000
05001	B_TOT	BORON TOTAL	83	MG/L			10000
05002	B_TOT	BORON TOTAL	84	MG/L			10000
05004	B_TOT	BORON TOTAL	85	UG/L	0.05		10000
05101	B_DIS	BORON DISSOLVED	86	MG/L	.01		10000
05102	B_DIS	BORON DISSOLVED	87	MG/L	.06		10000
05103	B_DIS	BORON DISSOLVED	88	MG/L			10000
05104	B_DIS	BORON DISSOLVED	89	MG/L			10000
05105	B_DIS	BORON DISSOLVED	90	MG/L	.02		10000
05106	B_DIS	BORON DISSOLVED	91	MG/L	.1		10000
05107	B_DIS	BORON DISSOLVED	1502	MG/L	.002		10000
05111	B_DIS	BORON DISSOLVED	1516	UG/L	2		10000
05210	B_EXTR	BORON EXTRACTABLE	77	MG/L			10000
05230	B_EXTR	BORON EXTRACTABLE	2346	MG/KG	0.06		
06001	C_ORG_TOT	CARBON TOTAL ORGANIC	95	MG/L	.5		200000
06002	C_ORG_TOT_CALC	CARBON TOTAL ORGANIC (CALCD.)	96	MG/L			200000
06003	C_ORG_TOT	CARBON TOTAL ORGANIC	97	MG/L	.5		200000
06004	C_ORG_TOT	CARBON TOTAL ORGANIC	98	MG/L	.2		200000
06005	C_ORG_TOT	CARBON TOTAL ORGANIC	99	MG/L	.1		200000
06006	C_TOT	CARBON TOTAL	97	MG/L	.5		200000
06007	C_ORG_TOT	CARBON TOTAL ORGANIC	105	MG/L			200000

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VMV CODE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
06008	C_ORG_TOT	CARBON TOTAL ORGANIC	102	MG/L	.03		200000
06009	C_ORG_TOT	CARBON TOTAL ORGANIC	96	MG/L			200000
06010	C_ORG_TOT	CARBON TOTAL ORGANIC	99	MG/L	.1		200000
06011	C_ORG_TOT	CARBON TOTAL ORGANIC	2306	MG/L	5.0		100
06015	C_TOT	CARBON TOTAL	105	MG/L	1		200000
06016	C_TOT	CARBON TOTAL	2306	MG/L	5.0		100
06051	C_INOR_TOT	CARBON TOTAL INORGANIC	95	MG/L	.5		100000
06052	C_INOR_TOT	CARBON TOTAL INORGANIC	99	MG/L	.5		100000
06053	C_INOR_TOT	CARBON TOTAL INORGANIC	113	MG/L			100000
06054	C_INOR_TOT	CARBON TOTAL INORGANIC	2306	MG/L	5.0		100
06074	C_TOT	CARBON TOTAL	105	MG/L	5		200000
06075	C_TOT	CARBON TOTAL	110	MG/KG			50000000
06076	C_ORG_TOT	CARBON TOTAL ORGANIC	110	MG/KG			50000000
06077	C_ORG	CARBON ORGANIC	110	MG/KG			50000000
06080	C_INOR	CARBON INORGANIC	113	MG/KG			100000
06101	C_DIS_ORG	CARBON DISSOLVED ORGANIC	95	MG/L	.5		10000
06103	C_DIS_ORG	CARBON DISSOLVED ORGANIC	98	MG/L	.2		10000
06104	C_DIS_ORG	CARBON DISSOLVED ORGANIC	99	MG/L	.1		10000
06105	C_DIS_TOT	CARBON DISSOLVED TOTAL	97	MG/L			100000
06106	C_DIS_ORG	CARBON DISSOLVED ORGANIC	118	MG/L			10000
06107	C_DIS_ORG	CARBON DISSOLVED ORGANIC	119	MG/L	.4		10000
06108	C_DIS_ORG_CALC	CARBON DISSOLVED ORGANIC (CALCD.)	120	MG/L			10000
06109	C_DIS_ORG	CARBON DISSOLVED ORGANIC	121	MG/L	.2		10000
06111	C_DIS_ORG	CARBON DISSOLVED ORGANIC	95	MG/L			10000
06112	C_DIS_ORG_TOT	CARBON DISSOLVED ORGANIC TOTAL	123	MG/L	.1		10000
06113	C_DIS_INOR_TOT	CARBON DISSOLVED INORGANIC TOTAL	123	MG/L	.1		100000
06117	C_DIS_ORG	CARBON DISSOLVED ORGANIC	2358	MG/L	.1		10000
06151	C_DIS_INOR	CARBON DISSOLVED INORGANIC	95	MG/L	.5		100000
06152	C_DIS_INOR	CARBON DISSOLVED INORGANIC	99	MG/L	.5		100000
06153	C_DIS_INOR	CARBON DISSOLVED INORGANIC	99	MG/L			100000
06154	C_DIS_INOR	CARBON DISSOLVED INORGANIC	119	MG/L	1		100000
06155	C_DIS_INOR	CARBON DISSOLVED INORGANIC	129	MG/L			100000
06159	C_DIS_INOR	CARBON DISSOLVED INORGANIC	121	MG/L	.2		100000
06161	C_DIS_INOR	CARBON DISSOLVED INORGANIC	131	MG/L			100000
06180	C_DIS_INOR	CARBON DISSOLVED INORGANIC	132	MG/L			100000
06181	C_DIS_INOR_CALC	CARBON DISSOLVED INORGANIC (CALCD.)	133	MG/L	.024		100000
06191	C_TOT	CARBON TOTAL	134	MG/L	.005		100000
06201	HCO3_CALC	BICARBONATE (CALCD.)	135	MG/L			100000
06202	HCO3_CALC_LAB	BICARBONATE LAB (CALCD.)	136	MG/L			5000
06301	CO3	CARBONATE (CALCD.)	137	MG/L			50000
06302	CO3_DIS	CARBONATE DISSOLVED	136	MG/L			50000
06401	CO2_FREE	FREE CO2 (CALCD.)	139	MG/L			
06402	CO2_DIS	CO2 DISSOLVED	140	MG/L			5000
06411	C_TOT	CARBON TOTAL	142	MG/KG			100000
06441	C_ORG	CARBON ORGANIC	142	MG/KG			50000000
06500	N_ALKANES	N-ALKANES C10 - C26	143	UG/L	1.0		500
06505	PAH	POLYAROMATIC HYDROCARBONS	144	UG/L	0.02		500
06510	AH	AROMATIC HYDROCARBONS	145	UG/L	1.0		500
06515	CYCLODIENS	CYCLODIENES	718	UG/L	0.1		500
06516	CYCLODIENS_TOT	CYCLODIENES TOTAL (CALCD.)	147	UG/L			
06521	OIL_GREASE	OIL AND GREASE	148	MG/L	1		2000000
06522	OIL_GREASE	OIL AND GREASE	149	MG/L	1		2000000
06523	OIL_GREASE	OIL AND GREASE	150	MG/L	1		2000000
06524	OIL_GREASE	OIL AND GREASE	151	MG/L			2000000
06526	OIL_GREASE	OIL AND GREASE	152	MG/KG	1		1000000
06531	PHENOLIC_MAT	PHENOLIC MATERIAL	154	MG/L			10000
06532	PHENOLIC_MAT	PHENOLIC MATERIAL	154	MG/L	.002		10000
06533	PHENOLIC_MAT	PHENOLIC MATERIAL	154	MG/L	.001		10000
06534	PHENOLIC_MAT	PHENOLIC MATERIAL	154	MG/L	.001		10000
06535	PHENOLIC_MAT	PHENOLIC MATERIAL	157	MG/L	.001		10000
06536	PHENOLIC_MAT	PHENOLIC MATERIAL	154	MG/L	.0005		10000
06537	PHENOLIC_MAT	PHENOLIC MATERIAL	154	MG/L	.001		10000
06538	PHENOLIC_MAT	PHENOLIC MATERIAL	160	MG/L	.001		10000
06540	FLUORESCEIN_DYE	FLUORESCEIN DYE	161	MG/L	.001		500
06545	NONYLPHENOL	NONYLPHENOL	162	UG/L	1		1000
06548	NONYLPHENOL	NONYLPHENOL	162	MG/KG	.3		1000000
06551	TANNIN_LIGNIN	TANNIN AND LIGNIN LIG. SULPH.	164	MG/L	.1		1000000
06552	TANNIN_LIGNIN	TANNIN AND LIGNIN LIG. SULPH.	164	MG/L	.02		1000000
06561	LIGNO_SULPH	LIGNOSULPHONATES	166	MG/L	1		1000000
06571	GASOLINE_PREM	HYDROCARBONS GASOLINE (PREMIUM)	167	MG/L	1		10000000
06572	GASOLINE_REG	HYDROCARBONS GASOLINE (REGULAR)	167	MG/L	1		10000000
06573	KEROSENE	HYDROCARBONS KEROSENE	167	MG/L	1		10000000
06574	JET_FUEL	HYDROCARBONS JET FUEL	167	MG/L	1		10000000
06575	DIESEL_OIL	HYDROCARBONS DIESEL OIL	167	MG/L	1		10000000
06576	STOVE_OIL	HYDROCARBONS STOVE OIL	167	MG/L	1		10000000
06577	FURNACE_OIL	HYDROCARBONS FURNACE OIL	167	MG/L	1		10000000
06578	BUNKER_OIL	HYDROCARBONS BUNKER OIL	167	MG/L	1		10000000

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VMV CODE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
06580	ORG-ACIDS	ORGANIC ACIDS	2327	MEQ/L	0.0020		0.0330
06581	HUMIC_ACID	HUMIC ACID	175	MG/L	1		10000000
06582	HUMIC_ACID	HUMIC ACID	175	MG/L	1		10000000
06583	HUMIC_ACID_TOT	HUMIC ACIDS TOTAL	177	MG/L	1		10000000
06584	HUMIC_ACID_DIS	HUMIC ACIDS DISSOLVED	177	MG/L			10000000
06585	HUMIC_ACID_TOT	HUMIC ACIDS TOTAL	179	MG/L	1		10000000
06587	FULVIC_ACID_TOT	FULVIC ACIDS TOTAL	177	MG/L			10000000
06588	FULVIC_ACID_DIS	FULVIC ACIDS DISSOLVED	177	MG/L			10000000
06589	FULVIC_ACID_TOT	FULVIC ACIDS TOTAL	179	MG/L	1		1000000
06590	HCHO_TOT	FORMALDEHYDE TOTAL	183	MG/L			50000
06601	CN	CYANIDE	184	MG/L	.001		10000
06604	CN_TOT	CYANIDE TOTAL	185	MG/L	.001		10000
06605	CN_TOT	CYANIDE TOTAL	186	MG/L	.03		10000
06606	CN	CYANIDE	187	MG/L	.0005		10000
06607	CN_TOT	CYANIDE TOTAL	185	MG/L			10000
06608	CN	CYANIDE	187	MG/L	.002		10000
06610	CN_TOT	CYANIDE TOTAL	2318	MG/L	0.001		
06708	CHLOROPHYLL_A	CHLOROPHYLL A	190	MG/L	.001		500
06709	CHLOROPHYLL_B	CHLOROPHYLL B	190	MG/L			500
06710	CHLOROPHYLL_C	CHLOROPHYLL C	190	MG/L			500
06711	CHLOROPHYLL_A	CHLOROPHYLL A	190	MG/L	.001		500
06712	CHLOROPHYLL_B	CHLOROPHYLL B	190	MG/L	.001		500
06713	CHLOROPHYLL_C	CHLOROPHYLL C	190	MG/L	.001		500
06714	CHLOROPHYLL_A_EXT	CHLOROPHYLL A EXTRBLE.	196	MG/L			500
06715	CHLOROPHYLL_A	CHLOROPHYLL A	197	MG/M3	0.1		500
06716	CHLOROPHYLL_A	CHLOROPHYLL A	198	MG/L	.001		500
06717	CHLOROPHYLL_A	CHLOROPHYLL A	198	MG/L	.001		500
06718	CHLOROPHYLL_A	CHLOROPHYLL A	198	MG/L			500
06719	CHLOROPHYLL_A	CHLOROPHYLL A	201	MG/M3			500
06720	CHLOROPHYLL_A_PHYTO	CHLOROPHYLL A PHYTOPLANKTON	198	MG/M3	0.001		500
06721	CHLOROPHYLL_A_EPILIT	CHLOROPHYLL A EPILITHON	198	MG/M3			500
06722	CHLOROPHYLL_A	CHLOROPHYLL A	204	UG/L			500
06723	CHLOROPHYLL_A_TOT	CHLOROPHYLL A TOTAL	205	MG/M3			500
06724	CHLOROPHYLL_A_ACTIVE	CHLOROPHYLL A ACTIVE	205	UG/M3			500
06725	CHLOROPHYLL_A	CHLOROPHYLL A	2333	MG/L			
06730	PHEOPHYTIN_EXTR	PHEOPHYTIN EXTRACTABLE	207	MG/L			500
06800	57-88-5	CHOLESTEROL	208	UG/L	0.05		500
06810	360-68-9	COPROSTANOL	208	UG/L	0.05		50
06901	C_PART_ORG	CARBON PARTICULATE ORGANIC	210	MG/L	.005		200000
06902	C_PART_ORG	CARBON PARTICULATE ORGANIC	210	MG/L	.005		200000
06903	C_PART	CARBON PARTICULATE	210	MG/L			200000
06904	C_PART_ORG	CARBON PARTICULATE ORGANIC	213	MG/L			200000
06905	C_PART_TOT	CARBON PARTICULATE TOTAL	214	MG/L	.001		200000
06912	C_PART_ORG	CARBON PARTICULATE ORGANIC	210	%			200000
06916	C/N	C/N RATIO	216	NO UNITS			100
07001	N_KJEL_TOT	NITROGEN TOTAL KJELDAHL	217	MG/L	.5		500000
07002	N_KJEL_TOT	NITROGEN TOTAL KJELDAHL	217	MG/L	.5		500000
07003	N_KJEL_TOT	NITROGEN TOTAL KJELDAHL	219	MG/L			500000
07004	N_KJEL_TOT	NITROGEN TOTAL KJELDAHL	220	MG/L	.03		500000
07005	N_KJEL_TOT	NITROGEN TOTAL KJELDAHL	217	MG/L	.005		500000
07006	N_KJEL_TOT	NITROGEN TOTAL KJELDAHL	217	MG/L	.002		500000
07008	N_TOT	NITROGEN TOTAL	217	MG/KG			999999
07009	N_KJEL	NITROGEN KJELDAHL	224	MG/KG	300		
07010	N_KJEL_TOT	NITROGEN TOTAL KJELDAHL	225	MG/L	.01		500000
07011	N_KJEL_TOT	NITROGEN TOTAL KJELDAHL	226	MG/L	.5		500000
07012	N_KJEL_TOT	NITROGEN TOTAL KJELDAHL	227	MG/L	.1		500000
07013	N_KJEL_TOT	NITROGEN TOTAL KJELDAHL	227	MG/L			500000
07014	N_KJEL_TOT	NITROGEN TOTAL KJELDAHL	227	MG/L			500000
07015	N_KJEL_TOT	NITROGEN TOTAL KJELDAHL	219	MG/L	.05		500000
07016	N_KJEL_TOT	NITROGEN TOTAL KJELDAHL	231	MG/L			500000
07017	N_KJEL_DIS	NITROGEN DISSOLVED KJELDAHL	219	MG/L	.04		100000
07018	N_KJEL_TOT	NITROGEN TOTAL KJELDAHL	233	MG/L	.01		500000
07020	N_KJEL_TOT	NITROGEN TOTAL KJELDAHL	219	MG/L			500000
07021	N_KJEL_TOT	NITROGEN TOTAL KJELDAHL	235	MG/L	.05		500000
07022	N_KJEL_TOT	NITROGEN TOTAL KJELDAHL	236	MG/L	.1		500000
07023	N_KJEL_TOT	NITROGEN TOTAL KJELDAHL	225	MG/L	.05		500000
07024	N_KJEL_TOT	NITROGEN TOTAL KJELDAHL	2308	MG/L	0.20		10.0
07051	N_KJEL_DIS	NITROGEN DISSOLVED KJELDAHL	217	MG/L	.5		100000
07103	N_NO3_NO2_DIS	NITROGEN DISSOLVED NO3 & NO2	2359	MG/L			100000
07105	N_NO3_NO2_DIS	NITROGEN DISSOLVED NO3 & NO2	2359	MG/L			100000
07106	N_NO3_NO2_DIS	NITROGEN DISSOLVED NO3 & NO2	239	MG/L	.001		100000
07108	N_NO3_NO2_DIS	NITROGEN DISSOLVED NO3 & NO2	242	MG/L			100000
07109	N_NO3_NO2_DIS	NITROGEN DISSOLVED NO3 & NO2	243	MG/L			100000
07110	N_NO3_NO2_DIS	NITROGEN DISSOLVED NO3 & NO2	239	MG/L	.005		100000
07111	N_NO3_NO2_DIS	NITROGEN DISSOLVED NO3 & NO2	245	MG/L	.002		100000
07112	N_NO3_NO2_DIS	NITROGEN DISSOLVED NO3 & NO2	239	MG/L			100000
07113	N_NO3_NO2_DIS	NITROGEN DISSOLVED NO3 & NO2	239	MG/L			100000

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VMV CODE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
07119	N_NO3_NO2_DIS	NITROGEN DISSOLVED NO3 & NO2	248	MG/L			100000
07120	N_NO3_NO2_DIS	NITROGEN DISSOLVED NO3 & NO2	243	MG/L			100000
07121	NO3_NO2	NITRATE/ NITRITE	243	MG/L			100000
07160	N_NO3_NO2	NITROGEN NO3 & NO2	251	MG/KG	10		
07205	NO2_DIS	NITROGEN DISSOLVED NITRITE	2359	MG/L			100000
07206	NO2_DIS	NITROGEN DISSOLVED NITRITE	239	MG/L	.001		100000
07207	NO2_DIS	NITROGEN DISSOLVED NITRITE	2361	MG/L			100000
07251	NO2_TOT	NITROGEN TOTAL NITRITE	2360	MG/L			100000
07260	NO2	NITROGEN NITRITE	251	MG/KG	10		
07301	NO3_DIS	NITROGEN DISSOLVED NITRATE	257	MG/L			100000
07306	NO3_DIS	NITROGEN DISSOLVED NITRATE	258	MG/L			100000
07307	NO3_DIS	NITROGEN DISSOLVED NITRATE	258	MG/L	.023		100000
07308	NO3_DIS	NITROGEN DISSOLVED NITRATE	260	MG/L	.023		100000
07309	NO3_DIS	NITROGEN DISSOLVED NITRATE	261	MG/L	0.05		200
07310	NO3_DIS	NITROGEN DISSOLVED NITRATE	262	MG/L			200
07311	NO3_DIS	NITROGEN DISSOLVED NITRATE	263	MG/L	0.1		200
07312	NO3_DIS	NITROGEN DISSOLVED NITRATE	264	MG/L	0.02		200
07313	NO3_DIS	NITROGEN DISSOLVED NITRATE	265	MG/L			200
07314	NO3_DIS	NITROGEN DISSOLVED NITRATE	266	MG/L			200
07315	NO3_DIS	NITROGEN DISSOLVED NITRATE	267	MG/L	0.01		200
07357	NO3_TOT	NITROGEN TOTAL NITRATE	268	MG/L			200
07401	N_ORG_TOT	NITROGEN TOTAL ORGANIC	217	MG/L	0.5		100
07403	N_ORG_TOT_CALC	NITROGEN TOTAL ORGANIC (CALCD.)	270	MG/L			100
07404	N_ORG_TOT_CALC	NITROGEN TOTAL ORGANIC (CALCD.)	271	MG/L			100
07405	N_ORG_TOT_CALC	NITROGEN TOTAL ORGANIC (CALCD.)	272	MG/L			100
07421	N_TOT	NITROGEN TOTAL	273	MG/KG			1.5
07501	NH3_TOT	AMMONIA TOTAL	283	MG/L			50
07503	NH3_TOT	AMMONIA TOTAL	217	MG/L	0.5		100
07504	NH3_TOT	AMMONIA TOTAL	276	MG/L	0.5		100
07505	NH3_TOT	AMMONIA TOTAL	219	MG/L	0.001		100
07506	NH3_TOT	AMMONIA TOTAL	278	MG/L	0.05		100
07507	NH3_TOT	AMMONIA TOTAL	264	MG/L			100
07509	NH3_TOT	AMMONIA TOTAL	280	MG/L			100
07530	NH3	AMMONIA	251	MG/KG	10		
07540	NH3_DIS	AMMONIA DISSOLVED	225	MG/L	0.005		1
07551	NH3_DIS	AMMONIA DISSOLVED	283	MG/L	0.1		50
07552	NH3_DIS	AMMONIA DISSOLVED	284	MG/L	0.001		50
07553	NH3_DIS	AMMONIA DISSOLVED	285	MG/L	0.5		50
07554	NH3_DIS	AMMONIA DISSOLVED	276	MG/L			50
07555	NH3_DIS	AMMONIA DISSOLVED	219	MG/L	0.001		50
07556	NH3_DIS	AMMONIA DISSOLVED	288	MG/L	0.005		50
07557	NH3_DIS	AMMONIA DISSOLVED	288	MG/L	0.002		50
07558	NH3_DIS	AMMONIA DISSOLVED	288	MG/L			50
07559	NH3_DIS	AMMONIA DISSOLVED	291	MG/L			30
07560	NH3_DIS	AMMONIA DISSOLVED	292	MG/L	0.01		50
07561	NH3_DIS	AMMONIA DISSOLVED	219	MG/L			50
07562	NH3_DIS	AMMONIA DISSOLVED	219	MG/L			50
07563	NH3_DIS	AMMONIA DISSOLVED	288	MG/L	0.002		50
07564	NH3_DIS	AMMONIA DISSOLVED	267	MG/L	0.01		50
07565	NH3	AMMONIA	219	MG/L	0.03		50
07566	NH3_DIS	AMMONIA DISSOLVED	2347	MG/L			
07569	NH3_UN_ION_CALC	AMMONIA UN-IONIZED (CALCD.)	298	MG/L			50
07570	NH3_UN_ION_CALC	AMMONIA UN-IONIZED (CALCD.)	299	MG/L			50
07601	N_TOT	NITROGEN TOTAL	300	MG/L	0.025		500
07602	N_TOT_CALC	NITROGEN TOTAL (CALCD.)	301	MG/L			500
07603	N_TOT_CALC	NITROGEN TOTAL (CALCD.)	302	MG/L			500
07604	N_TOT	NITROGEN TOTAL	110	MG/KG			500
07605	N_TOT	NITROGEN TOTAL	300	MG/L	0.2		500
07610	N_TOT	NITROGEN TOTAL	305	MG/L	0.002		500
07651	N_DIS	NITROGEN DISSOLVED	300	MG/L	0.025		200
07652	N_DIS	NITROGEN DISSOLVED	307	MG/L			200
07655	N_TOT_DIS	NITROGEN TOTAL DISSOLVED	300	MG/L	0.01		500
07661	N_DIS	NITROGEN DISSOLVED	300	MG/L			200
07701	N_ALBUMINOID	NITROGEN ALBUMINOID TOTAL N	276	MG/L			50
07721	UREA	UREA	311	MG/L	0.01		20
07722	UREA	UREA	311	MG/L	0.004		1
07901	N_PART	NITROGEN PARTICULATE	210	MG/L	0.02		200
07902	N_PART	NITROGEN PARTICULATE	210	MG/L	0.002		200
07903	N_PART	NITROGEN PARTICULATE	210	MG/L			200
07904	N_PART	NITROGEN PARTICULATE	316	MG/L			200
07905	N_PART_CALC	NITROGEN PARTICULATE (CALCD.)	316	MG/L			200
07906	N_PART_TOT	NITROGEN PARTICULATE TOTAL	318	MG/L	0.001		200
07912	N_ORG_PART	NITROGEN PARTICULATE ORGANIC	210	%			
08001	O_DIS_SAT	OXYGEN DISSOLVED % SATURATN.	320	%			100
08002	O_DIS_SAT_CALC	OXYGEN DISSOLVED % SATURATN. (CALCD.)	321	%			100
08003	O_DIS_SAT_DEEP	OXYGEN % SATURATN. DEEPEST	320	%			100
08004	O_DIS_SAT_UP	OXYGEN % SATURATN. UPPERMOST	320	%			

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VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
08101	O_DIS	OXYGEN DISSOLVED	324	MG/L	0.01		40
08102	O_DIS	OXYGEN DISSOLVED	325	MG/L			20
08103	O_DIS	OXYGEN DISSOLVED	326	MG/L	0.2		20
08104	O_DIS_DEEP	OXYGEN DISSOLVED DEEPEST	327	MG/L			
08105	O_DIS_UP	OXYGEN DISSOLVED UPPERMOST	327	MG/L			
08106	O_DIS	OXYGEN DISSOLVED	329	MG/L			
08201	O_BOD	OXYGEN BIOCHEMICAL DEMAND	330	MG/L	0.01		500
08202	O_BOD	OXYGEN BIOCHEMICAL DEMAND	331	MG/L	1		500
08203	O_BOD10	OXYGEN BIOCHEMICAL DEMAND BOD10	331	MG/L	0.1		500
08204	O_BOD14	OXYGEN BIOCHEMICAL DEMAND BOD14	331	MG/L	0.1		500
08211	O_BOD5_DIS	OXYGEN BIOCHEMICAL DEMAND DISSOLVED BOD5	330	MG/L			500
08212	O_BOD5_DIS	OXYGEN BIOCHEMICAL DEMAND DISSOLVED BOD5	331	MG/L			500
08213	O_BOD5_DIS	OXYGEN BIOCHEMICAL DEMAND DISSOLVED BOD5	326	MG/L			500
08214	O_BOD5_DIS	OXYGEN BIOCHEMICAL DEMAND DISSOLVED BOD5	331	MG/L	0.1		500
08215	O_BOD10_DIS	OXYGEN BIOCHEMICAL DEMAND DISSOLVED BOD10	331	MG/L	0.1		500
08216	O_BOD14_DIS	OXYGEN BIOCHEMICAL DEMAND DISSOLVED BOD14	331	MG/L	0.1		500
08217	O_CARB_BOD5	CARBONACEOUS OXYGEN DEMAND BOD5	331	NG/L	0.1		500
08218	O_CARB_BOD10	CARBONACEOUS OXYGEN DEMAND BOD10	331	MG/L	0.1		500
08219	O_CARB_BOD14	CARBONACEOUS OXYGEN DEMAND BOD14	331	MG/L	0.1		500
08301	O_COD_TOT	OXYGEN TOTAL COD	343	MG/L	1		1000
08302	O_COD_TOT	OXYGEN TOTAL COD	343	MG/L	4		1000
08303	O_COD_TOT	OXYGEN TOTAL COD	345	MG/L	5		1000
08304	O_COD_TOT	OXYGEN TOTAL COD	346	MG/L	5		1000
08349	O_COD_TOT	OXYGEN TOTAL COD	347	KG/DAY			
08351	O_COD_DIS	OXYGEN DISSOLVED COD	343	MG/L	1		1000
08401	O_CONSUMED	OXYGEN CONSUMED	349	MG/L			2000
08402	O_CONSUMED	OXYGEN CONSUMED	350	MG/L			2000
08501	OH	HYDROXIDE (CALCD.)	351	MG/L			
09101	F_DIS	FLUORIDE DISSOLVED	352	MG/L	0.10		10
09102	F_DIS	FLUORIDE DISSOLVED	353	MG/L	0.10		10
09103	F_DIS	FLUORIDE DISSOLVED	354	MG/L	0.10		10
09104	F_DIS	FLUORIDE DISSOLVED	355	MG/L	0.01		10
09105	F_DIS	FLUORIDE DISSOLVED	356	MG/L	0.05		10
09106	F_DIS	FLUORIDE DISSOLVED	356	MG/L	0.01		10
09107	F_DIS	FLUORIDE DISSOLVED	358	MG/L	0.02		10
09108	F_DIS	FLUORIDE DISSOLVED	358	MG/L			10
09110	F_DIS	FLUORIDE DISSOLVED	360	MG/L			10
09116	F	FLUORIDE	362	MG/L	0.5		10
09117	F_DIS	FLUORIDE DISSOLVED	361	MG/L			10
09118	F_DIS	FLUORIDE DISSOLVED	2354	MG/L	0.01		
10101	ALK_CACO3_TOT	ALKALINITY TOTAL CACO3	363	MG/L	0.5		500
10102	ALK_CACO3_TOT	ALKALINITY TOTAL CACO3	364	MG/L	0.5		500
10103	ALK_CACO3_TOT	ALKALINITY TOTAL CACO3	365	MG/L	0.5		500
10104	ALK_CACO3_TOT	ALKALINITY TOTAL CACO3	366	MG/L	0.5		500
10105	ALK_CACO3_TOT	ALKALINITY TOTAL CACO3	366	MG/L			500
10106	ALK_CACO3_TOT	ALKALINITY TOTAL CACO3	368	MG/L	2		500
10107	ALK_CACO3_TOT	ALKALINITY TOTAL CACO3	369	MG/L			500
10108	ALK_CACO3_TOT	ALKALINITY TOTAL CACO3	370	MG/L	0.5		500
10109	ALK_CACO3_TOT	ALKALINITY TOTAL CACO3	363	MG/L			500
10110	ALK_CACO3_GRAN	ALKALINITY GRAN CACO3	372	MG/L	0.1		500
10111	ALK_CACO3_TOT	ALKALINITY TOTAL CACO3	373	MG/L	0.1		500
10112	ALK_CACO3_TOT	ALKALINITY TOTAL CACO3	374	MG/L			500
10116	ALK_UNFIL_CACO3_TOT	ALKALINITY TOTAL UNFILT. CACO3	368	MG/L	2		500
10120	ALK_TOT	ALKALINITY TOTAL	376	MEQ/L			
10121	ALK_TOT	ALKALINITY TOTAL	377	MEQ/L			
10122	ALK_HCO3_TOT	ALKALINITY TOTAL HCO3	378	MEQ/L	0.01		
10151	ALK_PHEN	ALKALINITY PHENOLPHTHALEIN CACO3	379	MG/L	0.1		500
10160	ALK_CACO3_TOT	ALKALINITY TOTAL CACO3	380	MG/L			500
10201	ACID_4.5_CACO3	ACIDITY PH=4.5 CACO3	381	MG/L	0.5		500
10210	ACID_5.6_CACO3	ACIDITY PH=5.6 CACO3	382	MG/L			500
10211	ACID_5.6_CACO3	ACIDITY PH=5.6 CACO3	382	MG/L			500
10251	ACID_8.3_CACO3	ACIDITY PH=8.3 CACO3	384	MG/L	0.5		500
10252	ACID_TOT_CACO3	ACIDITY TOTAL CACO3	385	MG/L	0.1		500
10253	ACID_TOT_CACO3_CALC	ACIDITY TOTAL (CALCD.) CACO3	386	MG/L	0.1		
10260	ACIDITY	ACIDITY	387	UEQ/L			
10300	PH	PH	388	PH UNITS			13.9
10301	PH	PH	389	PH UNITS			13.9
10302	PH	PH	389	PH UNITS			13.9
10303	PH	PH	389	PH UNITS			13.9
10304	PH	PH	392	PH UNITS			
10305	PH	PH	393	PH UNITS			9
10310	PH_THEO	PH THEORETICAL (CALCD.)	394	PH UNITS			
10311	PH_THEO_ERR	PH THEORETICAL ERROR (CALCD.)	395	%			
10401	RES_NF	RESIDUE NONFILTRABLE	396	MG/L	10		20000
10402	RES_NF	RESIDUE NONFILTRABLE	397	MG/L			20000
10403	RES_NF	RESIDUE NONFILTRABLE	398	MG/L			20000
10404	RES_NF	RESIDUE NONFILTRABLE	399	MG/L			20000

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VMV CODE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
10405	RES_NF	RESIDUE NONFILTRABLE	396	MG/L	1		20000
10406	RES_NF	RESIDUE NONFILTRABLE	401	MG/L	1		20000
10407	RES_NF	RESIDUE NONFILTRABLE	402	MG/L	2		20000
10408	RES_NF	RESIDUE NONFILTRABLE	403	MG/L			20000
10409	RES_NF	RESIDUE NONFILTRABLE	2304	MG/L	5		30000
10451	RES_F	RESIDUE FILTERABLE	404	MG/L	10		5000
10452	RES_F	RESIDUE FILTERABLE	404	MG/L	10		5000
10453	RES_F	RESIDUE FILTERABLE	406	MG/L	2		5000
10454	RES_F	RESIDUE FILTERABLE	2304	MG/L	5		30000
10471	RES_TOT	RESIDUE TOTAL	407	MG/L			25000
10472	RES_TOT	RESIDUE TOTAL	408	MG/L			25000
10473	RES_TOT	RESIDUE TOTAL	406	MG/L	10		25000
10474	RES_TOT	RESIDUE TOTAL	410	MG/L	10		25000
10475	RES_TOT	RESIDUE TOTAL	2304	MG/L	5		30000
10501	RES_FIX_NF	RESIDUE FIXED NONFILTRABLE	411	MG/L	10		20000
10502	RES_FIX_NF	RESIDUE FIXED NONFILTRABLE	412	MG/L			20000
10504	RES_FIX_NF	RESIDUE FIXED NONFILTRABLE	413	MG/L			20000
10505	RES_FIX_NF	RESIDUE FIXED NONFILTRABLE	414	MG/L			20000
10506	RES_FIX_NF	RESIDUE FIXED NONFILTRABLE	2304	MG/L	5		30000
10511	RES_VOL_NF_CALC	RESIDUE VOLATILE NONFILTRABLE (CALCD.)	415	MG/L			10000
10512	RES_VOL_NF	RESIDUE VOLATILE NONFILTRABLE	416	MG/L			10000
10513	RES_VOL_NF	RESIDUE VOLATILE NONFILTRABLE	2304	MG/L	5		30000
10521	RES_VOL_TOT_CALC	RESIDUE VOLATILE TOTAL (CALCD.)	417	MG/L			5000
10522	RES_VOL_TOT	RESIDUE VOLATILE TOTAL	418	MG/L			5000
10531	RES_VOL_F	RESIDUE VOLATILE FILTERABLE	419	MG/L			5000
10551	RES_FIX_F	RESIDUE FIXED FILTERABLE	420	MG/L	10		5000
10552	RES_FIX_F	RESIDUE FIXED FILTERABLE	2304	MG/L	5		30000
10571	RES_FIX_TOT	RESIDUE FIXED TOTAL	421	MG/L			25000
10572	RES_FIX_TOT	RESIDUE FIXED TOTAL	2304	MG/L	5		30000
10601	HARD_TOT_CACO3_CALC	HARDNESS TOTAL (CALCD.) CACO3	422	MG/L			10000
10602	HARD_TOT_CACO3_CALC	HARDNESS TOTAL (CALCD.) CACO3	423	MG/L			10000
10603	HARD_TOT_CACO3	HARDNESS TOTAL CACO3	424	MG/L	1		10000
10604	HARD_TOT_CACO3	HARDNESS TOTAL CACO3	425	MG/L			10000
10605	HARD_TOT_CACO3	HARDNESS TOTAL CACO3	424	MG/L			10000
10606	HARD_TOT_CACO3_CAL_L	HARDNESS TOTAL LAB (CALCD.) CACO3	422	MG/L			10000
10650	HARD_NON-CARB_CALC	HARDNESS NON-CARB. (CALCD.)	428	MG/L			5000
10701	LAS	N-ALKYL SULPHONATES (LAS)	429	MG/L			100
10702	MBAS	ANIONIC TENSIDES (MBAS)	429	MG/L			100
10705	NONIONIC_TENSIDES	NONIONIC TENSIDES	431	MG/L			100
10711	NTA	NITRILOTRIACETIC ACID	432	MG/L	.025		10000
10712	NTA	NITRILOTRIACETIC ACID	433	MG/L	0.1		10000
10721	RESIN_ACID	RESIN ACID SOAPS	434	MG/L	0.1		1000
10729	RESIN_ACID	RESIN ACID SOAPS	435	KG/DAY			
10801	SALINITY	SALINITY	436	MG/L			500
10811	HALIDES_TOT	HALIDES TOTAL	437	MG/L			5000
11001	NA_TOT	SODIUM TOTAL	438	MG/L			
11002	NA_TOT	SODIUM TOTAL	59	MG/L			
11005	NA_TOT	SODIUM TOTAL	440	MG/L	0.2		
11007	NA_TOT	SODIUM TOTAL	441	UG/L	0.03		
11050	NA_TOT	SODIUM TOTAL	58	MG/L	0.1		10000
11101	NA_DIS	SODIUM DISSOLVED	59	MG/L	0.1		10000
11102	NA_DIS	SODIUM DISSOLVED	444	MG/L	0.1		10000
11103	NA_DIS	SODIUM DISSOLVED	445	MG/L	0.02		10000
11104	NA_DIS	SODIUM DISSOLVED	445	MG/L	0.1		10000
11105	NA_DIS	SODIUM DISSOLVED	479	MG/L			10000
11106	NA_DIS	SODIUM DISSOLVED	448	MG/L	1.0		10000
11107	NA_DIS	SODIUM DISSOLVED	445	MG/L			10000
11111	NA_DIS	SODIUM DISSOLVED	1516	MG/L	0.03		10000
11112	NA_DIS	SODIUM DISSOLVED	451	MG/L	0.01		10000
11115	NA_DIS	SODIUM DISSOLVED	1502	MG/L	0.001		10000
11201	NA_ADSORP_RATIO	SODIUM ADSORPTION RATIO (CALCD.)	453	REL UNITS			
11250	NA_%	SODIUM PERCENTAGE (CALCD.)	454	%			
11311	NA_EXTR	SODIUM EXTRACTABLE	455	MG/L	1.0		5000
11312	NA_EXTR	SODIUM EXTRACTABLE	2322	MG/L	1.00		1000
11321	NA_EXTR	SODIUM EXTRACTABLE	1526	UG/L	200		5000
11330	NA_EXTR	SODIUM EXTRACTABLE	2346	MG/KG	4.0		
11401	NA2O	NA2O	457	%			
11451	NA_TOT	SODIUM TOTAL	1728	MG/L	0.05		10000
12001	MG_TOT	MAGNESIUM TOTAL	458	MG/L			3000
12002	MG_TOT	MAGNESIUM TOTAL	459	MG/L	0.1		3000
12003	MG_TOT	MAGNESIUM TOTAL	460	MG/L			3000
12005	MG_TOT	MAGNESIUM TOTAL	440	MG/L	0.05		3000
12012	MG_TOT	MAGNESIUM TOTAL	441	UG/L	0.002		3000
12050	MG_TOT	MAGNESIUM TOTAL	58	MG/KG	3		10000
12051	MG_TOT	MAGNESIUM TOTAL	2310	MG/KG	0.5		85000
12101	MG_DIS_CALC	MAGNESIUM DISSOLVED (CALCD.)	463	MG/L			2000
12102	MG_DIS	MAGNESIUM DISSOLVED	459	MG/L	0.01		2000

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12103	MG_DIS	MAGNESIUM DISSOLVED	465	MG/L	1		2000
12104	MG_DIS	MAGNESIUM DISSOLVED	466	MG/L			2000
12105	MG_DIS	MAGNESIUM DISSOLVED	459	MG/L	0.25		2000
12106	MG_DIS	MAGNESIUM DISSOLVED	459	MG/L			2000
12107	MG_DIS	MAGNESIUM DISSOLVED	469	MG/L			2000
12108	MG_HARD	MAGNESIUM HARDNESS	470	MG/L			2000
12111	MG_DIS	MAGNESIUM DISSOLVED	1516	MG/L	0.002		2000
12115	MG_DIS	MAGNESIUM DISSOLVED	1502	MG/L	0.001		2000
12302	MG_EXTR	MAGNESIUM EXTRACTABLE	459	MG/L	0.1		1000
12303	MG_EXTR	MAGNESIUM EXTRACTABLE	459	MG/L			1000
12311	MG_EXTR	MAGNESIUM EXTRACTABLE	455	MG/L	0.50		1000
12312	MG_EXTR	MAGNESIUM EXTRACTABLE	2322	MG/L	0.50		250
12321	MG_EXTR	MAGNESIUM EXTRACTABLE	1526	UG/L	100		1000
12330	MG_EXTR	MAGNESIUM EXTRACTABLE	2346	MG/KG	2.0		
12401	MGO	MGO	457	%			
12451	MG_TOT	MAGNESIUM TOTAL	1728	MG/L	0.01		3000
13001	AL_TOT	ALUMINUM TOTAL	458	MG/L			200000
13002	AL_TOT	ALUMINUM TOTAL	479	MG/L	1		200000
13003	AL_TOT	ALUMINUM TOTAL	69	MG/L	.05		200000
13004	AL_TOT	ALUMINUM TOTAL	481	MG/L			200000
13006	AL_TOT	ALUMINUM TOTAL	479	MG/L	.001		200000
13009	AL_TOT	ALUMINUM TOTAL	1502	MG/L	.001		200000
13020	AL_TOT_REC	ALUMINUM TOTAL RECOVERABLE	2365	MG/L			200000
13030	AL_TOT	ALUMINUM TOTAL	1520	MG/L	0.05		2.500
13050	AL_TOT	ALUMINUM TOTAL	58	MG/KG	500		200
13053	AL_TOT	ALUMINUM TOTAL	486	MG/KG	1		10000
13054	AL_NON-RES	ALUMINUM NON-RES	487	MG/KG	5		10000
13101	AL_DIS	ALUMINUM DISSOLVED	488	MG/L	.01		100000
13102	AL_DIS	ALUMINUM DISSOLVED	479	MG/L	.1		100000
13103	AL_DIS	ALUMINUM DISSOLVED	69	MG/L	.05		100000
13104	AL_DIS	ALUMINUM DISSOLVED	491	MG/L			100000
13105	AL_DIS	ALUMINUM DISSOLVED	481	MG/L			100000
13106	AL_DIS	ALUMINUM DISSOLVED	493	MG/L	.002		100000
13109	AL_DIS	ALUMINUM DISSOLVED	1502	MG/L	.001		100000
13111	AL_DIS	ALUMINUM DISSOLVED	1516	UG/L	2		100000
13202	AL_EXTR	ALUMINUM EXTRACTABLE	77	MG/L	.1		100000
13203	AL_EXTR	ALUMINUM EXTRACTABLE	69	MG/L	.05		100000
13301	AL_EXTR	ALUMINUM EXTRACTABLE	488	MG/L	.01		100000
13302	AL_EXTR	ALUMINUM EXTRACTABLE	499	MG/L	.1		100000
13303	AL_EXTR	ALUMINUM EXTRACTABLE	69	MG/L	.05		100000
13304	AL_EXTR	ALUMINUM EXTRACTABLE	481	MG/L			100000
13305	AL_EXTR	ALUMINUM EXTRACTABLE	493	MG/L	.002		100000
13306	AL_EXTR	ALUMINUM EXTRACTABLE	79	MG/L	.02		100000
13309	AL_EXTR	ALUMINUM EXTRACTABLE	504	MG/L	.0005		100000
13311	AL_EXTR	ALUMINUM EXTRACTABLE	1502	MG/L	.001		100000
13321	AL_EXTR	ALUMINUM EXTRACTABLE	1526	UG/L	10		100000
13322	AL_TOT	ALUMINUM TOTAL	441	UG/L	0.02		200000
13330	AL_EXTR	ALUMINUM EXTRACTABLE	2346	MG/KG	0.2		
13401	AL2O3	AL2O3	457	%			25
13451	AL_TOT	ALUMINUM TOTAL	1728	MG/L	.005		
13601	AL_EXTR	ALUMINUM EXTRACTABLE	1529	MG/KG			100000
14050	SI_TOT	SILICON TOTAL	58	MG/KG	500		500000
14101	SIO2_REAC	SILICA REACTIVE	511	MG/L	0.02		30000
14102	SIO2_REAC	SILICA REACTIVE	512	MG/L	0.02		30000
14103	SIO2_REAC	SILICA REACTIVE	513	MG/L			30000
14105	SIO2_REAC	SILICA REACTIVE	512	MG/L	0.2		30000
14106	SIO2_REAC	SILICA REACTIVE	512	MG/L			30000
14107	SIO2_REAC_FIL	SILICA REACTIVE FILTERED	512	MG/L			30000
14108	SIO2	SIO2	2329	MG/L	0.020		
14109	SIO2	SIO2	2328	MG/L	0.020		
14111	SIO2_DIS	SILICA DISSOLVED	1516	UG/L	8		2000
14112	SIO2_TOT	SILICON DIOXIDE TOTAL	441	UG/L	0.025		
14120	SI_DIS	SILICON DISSOLVED	519	MG/L	0.5		2000
14201	SI_ORTHO	SILICON SOL. ORTHOSILICATE	520	MG/L			2000
14401	SIO2	SIO2	457	%			98
14411	QUARTZ	QUARTZ	522	%			100
14461	CLAY	% CLAY MINERALS	523	%			100
15050	P_TOT	PHOSPHOROUS TOTAL	524	MG/KG	100		2000
15051	P_TOT	PHOSPHOROUS TOTAL	525	MG/KG	100		2000
15060	P_INOR	PHOSPHOROUS INORGANIC	524	MG/KG	100		2000
15070	P_ORG	PHOSPHOROUS ORGANIC	527	MG/KG			2000
15101	P_TOT_DIS	PHOSPHOROUS TOTAL DISSOLVED	528	MG/L			100000
15102	P_TOT_DIS	PHOSPHOROUS TOTAL DISSOLVED	567	MG/L	.002		100000
15103	P_TOT_DIS	PHOSPHOROUS TOTAL DISSOLVED	567	MG/L	.003		100000
15104	P_TOT_DIS	PHOSPHOROUS TOTAL DISSOLVED	577	MG/L			100000
15105	P_TOT_DIS	PHOSPHOROUS TOTAL DISSOLVED	580	MG/L	.04		100000
15106	P_TOT_DIS	PHOSPHOROUS TOTAL DISSOLVED	533	MG/L	.01		100000

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VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
15107	P_TOT_DIS	PHOSPHOROUS TOTAL DISSOLVED	534	MG/L			100000
15108	P_TOT_DIS	PHOSPHOROUS TOTAL DISSOLVED	2335	MG/L	0.010		1.000
15113	P_TOT_DIS	PHOSPHOROUS TOTAL DISSOLVED	567	MG/L			100000
15114	P_TOT_DIS	PHOSPHOROUS TOTAL DISSOLVED	580	MG/L	.002		100000
15201	PO4_ORTHO_SOL	PHOSPHATE SOLUBLE ORTHO	537	MG/L			100000
15202	PO4_ORTHO_SOL	PHOSPHATE SOLUBLE ORTHO	538	MG/L			100000
15205	PO4_ORTHO_TOT	PHOSPHATE TOTAL ORTHO	539	MG/L	.002		100000
15206	PO4_ORTHO_SOL	PHOSPHATE SOLUBLE ORTHO	280	MG/L	.00001		100000
15207	PO4_ORTHO_TOT	PHOSPHATE TOTAL ORTHO	541	MG/L	.002		100000
15254	PO4_ORTHO_DIS	PHOSPHATE DISSOLVED ORTHO	539	MG/L	.005		100000
15255	PO4_ORTHO_DIS	PHOSPHATE DISSOLVED ORTHO	539	MG/L	.002		100000
15256	PO4_ORTHO_DIS	PHOSPHATE DISSOLVED ORTHO	567	MG/L			100000
15257	PO4_ORTHO_DIS	PHOSPHATE DISSOLVED ORTHO	537	MG/L			100000
15258	PO4_ORTHO_DIS	PHOSPHATE DISSOLVED ORTHO	546	MG/L			100000
15259	PO4_ORTHO_DIS	PHOSPHATE DISSOLVED ORTHO	547	MG/L			100000
15260	PO4_ORTHO_DIS	PHOSPHATE DISSOLVED ORTHO	548	MG/L	.015		100000
15261	PO4_ORTHO_DIS	PHOSPHATE DISSOLVED ORTHO	539	MG/L			100000
15262	P_SOL_REAC	PHOSPHOROUS SOLUBLE REACTIVE	550	MG/L	.001		100000
15265	P_DIS_ORTHO	PHOSPHOROUS DISSOLVED ORTHO	2334	MG/L	0.002		0.400
15266	PO4_ORTHO_DIS	PHOSPHATE DISSOLVED ORTHO	567	MG/L			100000
15280	P_ORG_DIS	PHOSPHOROUS DISSOLVED ORGANIC	552	MG/L			100000
15301	P_INOR_TOT	PHOSPHOROUS TOTAL INORGANIC	559	MG/L	.003		100000
15313	PO4_INOR_TOT	PHOSPHATE TOTAL INORGANIC	554	MG/L	.005		100000
15314	PO4_INOR_TOT	PHOSPHATE TOTAL INORGANIC	555	MG/L			100000
15315	P_TOT	PHOSPHOROUS TOTAL	556	MG/L	.01		100000
15346	P_INOR_DIS	PHOSPHOROUS DISSOLVED INORGANIC	559	MG/L			100000
15353	PO4_INOR_DIS	PHOSPHATE DISSOLVED INORGANIC	558	MG/L	.005		100000
15356	PO4_INOR_DIS	PHOSPHATE DISSOLVED INORGANIC	559	MG/L	.002		100000
15363	PO4_INOR_DIS	PHOSPHATE DISSOLVED INORGANIC	558	MG/L	.001		100000
15364	PO4_INOR_DIS	PHOSPHATE DISSOLVED INORGANIC	561	MG/L	.002		100000
15365	PO4_INOR_DIS	PHOSPHATE DISSOLVED INORGANIC	555	MG/L	.005		100000
15402	PO4_TOT	PHOSPHATE TOTAL	563	MG/L			100000
15403	PO4_TOT	PHOSPHATE TOTAL	564	MG/L	.005		100000
15404	PO4_TOT_FILTR	PHOSPHATE TOTAL (FILTRATE)	538	MG/L			100000
15405	P_TOT	PHOSPHOROUS TOTAL	566	MG/L	.002		100000
15406	P_TOT	PHOSPHOROUS TOTAL	567	MG/L	.002		100000
15407	PO4_TOT	PHOSPHATE TOTAL	567	MG/L	.1		100000
15408	PO4_TOT	PHOSPHATE TOTAL	538	MG/L			100000
15409	P_TOT	PHOSPHOROUS TOTAL	570	MG/L	.02		100000
15410	P_TOT_FILTR	PHOSPHOROUS TOTAL (FILTRATE)	280	MG/L			100000
15411	P_TOT	PHOSPHOROUS TOTAL	2362	MG/L			100000
15412	P_TOT	PHOSPHOROUS TOTAL	563	MG/L			100000
15413	P_TOT	PHOSPHOROUS TOTAL	566	MG/L	.0002		100000
15414	P_TOT	PHOSPHOROUS TOTAL	575	MG/L			100000
15415	P_TOT	PHOSPHOROUS TOTAL	576	MG/L	.015		100000
15416	PO4_TOT	PHOSPHATE TOTAL	577	MG/L	.05		100000
15417	P_TOT_DIS	PHOSPHOROUS TOTAL DISSOLVED	567	MG/L			100000
15418	P_TOT	PHOSPHOROUS TOTAL	579	MG/L			100000
15419	P_TOT	PHOSPHOROUS TOTAL	580	MG/L	.02		100000
15420	P_TOT	PHOSPHOROUS TOTAL	581	MG/L	.05		100000
15421	P_TOT	PHOSPHOROUS TOTAL	582	MG/L	.006		100000
15422	P_TOT	PHOSPHOROUS TOTAL	580	MG/L	.001		100000
15423	P_TOT_DIS	PHOSPHOROUS TOTAL DISSOLVED	2331	MG/L	0.002		0.400
15431	P2O5	P2O5	457	%			2
15441	NAIP	NAIP	585	MG/KG			100000
15451	AIP	AIP	585	MG/KG			100000
15453	PO4_DIS	PHOSPHATE DISSOLVED	564	MG/L	.005		100000
15463	PO4_DIS	PHOSPHATE DISSOLVED	564	MG/L	.0002		100000
15464	PO4_DIS	PHOSPHATE DISSOLVED	576	MG/L	.015		100000
15465	P_TOT_DIS	PHOSPHOROUS TOTAL DISSOLVED	2332	MG/L	0.002		0.400
15471	P_ORG	PHOSPHOROUS ORGANIC	590	MG/KG			10000
15481	P_TOT	PHOSPHOROUS TOTAL	591	MG/KG			10000
15501	P_TOT	PHOSPHOROUS TOTAL	592	MG/KG	50		10000
15502	P_TOT	PHOSPHOROUS TOTAL	593	MG/KG	50		10000
15503	P_TOT	PHOSPHOROUS TOTAL	594	MG/KG	100		10000
15511	P_INOR	PHOSPHOROUS INORGANIC	595	MG/KG	50		10000
15601	P_ORG_TOT	PHOSPHOROUS TOTAL ORGANIC	527	MG/L			100000
15663	P_TOT	PHOSPHOROUS TOTAL	597	MG/KG	.1		1000
15901	P_PART_CALC	PHOSPHOROUS PARTICULATE (CALCD.)	598	MG/L			50000
15902	P_PART	PHOSPHOROUS PARTICULATE	598	MG/L			50000
15903	P_PART_SUS	PHOSPHOROUS SUSPENDED PARTICULATE	600	MG/L			50000
15920	P_PART_NFIL_TOT	PHOSPHOROUS PARTICULATE NON-FILTRAB. TOTAL	601	MG/L			5000
15921	PO4_ORTHO_PART	PHOSPHATE PARTICULATE ORTHO	598	MG/L			10000
15931	PO4_INOR_PART	PHOSPHATE INORGANIC PARTICULATE	603	MG/L			20000
15961	P_ORG_PART	PHOSPHOROUS PARTICULATE ORGANIC	604	MG/L			20000
15970	P_PART_TOT	PHOSPHOROUS PARTICULATE TOTAL	601	MG/L			50000
16001	S_TOT	SULPHUR TOTAL	2365	MG/L			

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VMV CODE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
16101	S_DIS	SULPHIDE DISSOLVED	2365	MG/L			
16102	S_DIS	SULPHIDE DISSOLVED	606	MG/L			
16103	S_DIS	SULPHIDE DISSOLVED	607	MG/L			
16104	S_DIS	SULPHIDE DISSOLVED	608	MG/L	.001		
16110	S_MERCAPTAN	MERCAPTAN	607	MG/L			
16301	SO4_DIS	SULPHATE DISSOLVED	610	MG/L	1.0		5000
16302	SO4_DIS	SULPHATE DISSOLVED	611	MG/L			5000
16303	SO4_DIS	SULPHATE DISSOLVED	612	MG/L	1		5000
16304	SO4_DIS	SULPHATE DISSOLVED	613	MG/L			5000
16305	SO4_DIS	SULPHATE DISSOLVED	631	MG/L			5000
16306	SO4_DIS	SULPHATE DISSOLVED	615	MG/L	0.2		5000
16307	SO4_DIS	SULPHATE DISSOLVED	615	MG/L			5000
16309	SO4_DIS	SULPHATE DISSOLVED	617	MG/L	0.01		5000
16310	SO4_DIS	SULPHATE DISSOLVED	618	MG/L	0.5		5000
16311	SO4	SULPHATE	619	MG/L	0.5		5000
16312	SO4_DIS	SULPHATE DISSOLVED	2309	MG/L	0.20		300
16313	SO4_DIS	SULPHATE DISSOLVED	2326	MG/L	.5		25
16401	S	SULPHUR	457	MG/KG			7
16502	S2O3_TOT	THIOSULFATE TOTAL	621	MG/L			2000
16510	R'-S-R_TOT	THIO-SALTS TOTAL	622	MG/L			2000
17101	CL2	CHLORINE	623	MG/L			30000
17102	CL2	CHLORINE	624	MG/L			30000
17201	CL_DIS	CHLORIDE DISSOLVED	625	MG/L	0.1		30000
17202	CL_DIS	CHLORIDE DISSOLVED	626	MG/L	0.1		30000
17203	CL_DIS	CHLORIDE DISSOLVED	627	MG/L	0.1		30000
17204	CL_DIS	CHLORIDE DISSOLVED	628	MG/L			30000
17205	CL_DIS	CHLORIDE DISSOLVED	606	MG/L			30000
17206	CL_DIS	CHLORIDE DISSOLVED	630	MG/L	0.05		30000
17207	CL_DIS	CHLORIDE DISSOLVED	631	MG/L			30000
17208	CL_DIS	CHLORIDE DISSOLVED	630	MG/L			30000
17209	CL_DIS	CHLORIDE DISSOLVED	617	MG/L	0.01		30000
17210	CL_DIS	CHLORIDE DISSOLVED	634	MG/L			30000
17211	CL	CHLORIDE	635	MG/L	0.5		30000
17401	TRIHALOMETHANES	TRIHALOMETHANES	636	UG/L			500000
17403	67-66-3	CHLOROFORM	637	UG/L	.1		1000000
17405	75-27-4	DICHLOROBROMOMETHANE	637	UG/L			1000000
17407	124-48-1	DIBROMOCHLOROMETHANE	637	UG/L			1000000
17413	67-66-3	CHLOROFORM	637	MG/L			1000000
17415	75-27-4	DICHLOROBROMOMETHANE	637	MG/L			1000000
17417	124-48-1	DIBROMOCHLOROMETHANE	637	MG/L			1000000
17701	576-24-9	2,3-DICHLOROPHENOL	643	UG/L	.01		50000000
17702	120-83-2	2,4-DICHLOROPHENOL	643	UG/L	.01		50000000
17703	583-78-8	2,5-DICHLOROPHENOL	643	UG/L	.01		50000000
17704	87-65-0	2,6-DICHLOROPHENOL	643	UG/L	.01		
17705	95-77-2	3,4-DICHLOROPHENOL	643	UG/L	.01		
17706	591-35-5	3,5-DICHLOROPHENOL	643	UG/L	.01		
17710	15950-66-0	2,3,4-TRICHLOROPHENOL	643	UG/L	.01		
17711	933-78-8	2,3,5-TRICHLOROPHENOL	643	UG/L	.01		
17712	933-75-5	2,3,6-TRICHLOROPHENOL	643	UG/L	.01		
17713	88-06-2	2,4,6-TRICHLOROPHENOL	643	UG/L	.01		
17714	95-95-4	2,4,5-TRICHLOROPHENOL	643	NG/L	.01		
17715	609-19-8	3,4,5-TRICHLOROPHENOL	643	UG/L	.01		
17720	4901-51-3	2,3,4,5-TETRACHLOROPHENOL	643	UG/L	.01		
17721	935-95-5	2,3,5,6-TETRACHLOROPHENOL	643	UG/L	.01		
17723	58-90-2	2,3,4,6-TETRACHLOROPHENOL	643	UG/L	.1		
17730	95-57-8	2-CHLOROPHENOL	658	UG/L	.1		
17731	108-43-0	3-CHLOROPHENOL	658	UG/L	.1		
17732	106-48-9	4-CHLOROPHENOL	658	UG/L	.1		
17735	615-74-7	2-CHLORO-5-METHYLPHENOL	658	UG/L	.1		
17736	59-50-7	4-CHLORO-3-METHYLPHENOL	658	UG/L	.1		
17737	98-28-2	2-CHLORO-4-TERTIARYBUTYLPHENOL	658	UG/L	.1		
17740	576-24-9	2,3-DICHLOROPHENOL	643	NG/L	.01		50000000
17741	120-83-2	2,4-DICHLOROPHENOL	643	NG/L	.01		50000000
17742	87-65-0	2,6-DICHLOROPHENOL	643	NG/L	.01		
17743	95-77-2	3,4-DICHLOROPHENOL	643	NG/L	.01		
17744	591-35-5	3,5-DICHLOROPHENOL	643	NG/L	.01		
17745	15950-66-0	2,3,4-TRICHLOROPHENOL	643	NG/L	.01		
17746	933-78-8	2,3,5-TRICHLOROPHENOL	643	NG/L	.01		
17747	933-75-5	2,3,6-TRICHLOROPHENOL	643	NG/L	.01		
17748	88-06-2	2,4,6-TRICHLOROPHENOL	643	NG/L	.01		
17749	609-19-8	3,4,5-TRICHLOROPHENOL	643	NG/L	.01		
17750	4901-51-3	2,3,4,5-TETRACHLOROPHENOL	643	NG/L	.01		
17751	935-95-5	2,3,5,6-TETRACHLOROPHENOL	643	NG/L	.01		
17752	87-86-5	PENTACHLOROPHENOL	643	NG/L	.01		
17801	1336-36-3	POLYCHLORINATED BIPHENYLS	664	UG/L			
17802	12767-79-2	AROCLOR	719	MG/KG	.005		10000
17803	87-86-5	PENTACHLOROPHENOL	666	UG/L	.01		500000

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VMV CODE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
17804	87-86-5	PENTACHLOROPHENOL	643	UG/L	.01		
17809	118-74-1	HEXACHLOROBENZENE	668	MG/KG	.004		
17810	118-74-1	HEXACHLOROBENZENE	722	UG/L	.001		10000
17811	118-74-1	HEXACHLOROBENZENE	718	UG/L	.001		10000
17812	118-74-1	HEXACHLOROBENZENE	677	UG/L	.002		10000
17813	118-74-1	HEXACHLOROBENZENE	672	NG/L			
17814	118-74-1	HEXACHLOROBENZENE	673	NG/L	0.4		
17815	118-74-1	HEXACHLOROBENZENE	719	MG/KG	.001		500000
17816	118-74-1	HEXACHLOROBENZENE	675	MG/KG	.001		10000
17817	118-74-1	HEXACHLOROBENZENE	681	MG/KG	.0006		
17820	541-73-1	1,3-DICHLOROBENZENE	677	UG/L	.02		
17821	106-46-7	1,4-DICHLOROBENZENE	677	UG/L	.02		
17822	95-50-1	1,2-DICHLOROBENZENE	677	UG/L	.02		
17824	541-73-1	1,3-DICHLOROBENZENE	680	MG/KG			
17825	541-73-1	1,3-DICHLOROBENZENE	681	MG/KG	.008		
17826	106-46-7	1,4-DICHLOROBENZENE	681	MG/KG	.008		
17827	95-50-1	1,2-DICHLOROBENZENE	681	MG/KG	.008		
17828	95-50-1	1,2-DICHLOROBENZENE	680	MG/KG			
17829	106-46-7	1,4-DICHLOROBENZENE	680	MG/KG			
17830	108-70-3	1,3,5-TRICHLOROBENZENE	677	UG/L	.004		
17831	120-82-1	1,2,4-TRICHLOROBENZENE	677	UG/L	.004		
17832	87-61-6	1,2,3-TRICHLOROBENZENE	677	UG/L	.004		
17834	108-70-3	1,3,5-TRICHLOROBENZENE	680	MG/KG			
17835	108-70-3	1,3,5-TRICHLOROBENZENE	681	MG/KG	.0009		
17836	120-82-1	1,2,4-TRICHLOROBENZENE	681	MG/KG	.0009		
17837	87-61-6	1,2,3-TRICHLOROBENZENE	681	MG/KG	.0009		
17838	87-61-6	1,2,3-TRICHLOROBENZENE	680	MG/KG			
17839	120-82-1	1,2,4-TRICHLOROBENZENE	680	MG/KG			
17840	634-90-2	1,2,3,5-TETRACHLOROBENZENE	677	UG/L	.002		
17841	95-94-3	1,2,4,5-TETRACHLOROBENZENE	677	UG/L	.002		
17842	634-66-2	1,2,3,4-TETRACHLOROBENZENE	677	UG/L	.002		
17844	634-90-2	1,2,3,5-TETRACHLOROBENZENE	680	MG/KG			
17845	634-90-2	1,2,3,5-TETRACHLOROBENZENE	681	MG/KG	.0008		
17846	95-94-3	1,2,4,5-TETRACHLOROBENZENE	681	MG/KG	.0008		
17847	634-66-2	1,2,3,4-TETRACHLOROBENZENE	681	MG/KG	.0008		
17848	634-66-2	1,2,3,4-TETRACHLOROBENZENE	680	MG/KG			
17849	95-94-3	1,2,4,5-TETRACHLOROBENZENE	680	MG/KG			
17850	608-93-5	PENTACHLOROBENZENE	677	UG/L	.002		
17851	608-93-5	PENTACHLOROBENZENE	680	NG/L			
17855	608-93-5	PENTACHLOROBENZENE	681	MG/KG	.0008		
17856	608-93-5	PENTACHLOROBENZENE	680	MG/KG			
17860	ORCL-100	ORGANOCHLORINE COMPOUNDS TOTAL	708	UG/L			
17874	541-73-1	1,3-DICHLOROBENZENE	709	NG/L			
17878	95-50-1	1,2-DICHLOROBENZENE	709	NG/L			
17879	106-46-7	1,4-DICHLOROBENZENE	709	NG/L			
17884	108-70-3	1,3,5-TRICHLOROBENZENE	709	NG/L			
17888	87-61-6	1,2,3-TRICHLOROBENZENE	709	NG/L			
17889	120-82-1	1,2,4-TRICHLOROBENZENE	709	NG/L			
17894	634-90-2	1,2,3,5-TETRACHLOROBENZENE	709	NG/L			
17898	634-66-2	1,2,3,4-TETRACHLOROBENZENE	709	NG/L			
17899	95-94-3	1,2,4,5-TETRACHLOROBENZENE	709	NG/L			
18000	50-29-3	P,P'-DDT	718	UG/L	.001		100
18001	50-29-3	P,P'-DDT	719	MG/KG	.001		500
18002	50-29-3_TOT	DDT TOTAL	718	UG/L	.001		10
18003	50-29-3_TOT_CALC	DDT TOTAL (CALCD.)	721	UG/L			
18004	50-29-3	P,P'-DDT	722	UG/L	.001		10
18005	789-02-6	O,P'-DDT	718	UG/L	.001		100
18006	789-02-6	O,P'-DDT	719	MG/KG			500
18007	789-02-6	O,P'-DDT	722	UG/L	.001		10000
18008	789-02-6	O,P'-DDT	675	MG/KG	.001		10000
18009	50-29-3	P,P'-DDT	675	MG/KG	.001		10000
18010	72-54-8	P,P'-DDD	718	UG/L	.001		100000
18011	72-54-8	P,P'-DDD	719	MG/KG			500000
18012	72-54-8	P,P'-DDD	675	MG/KG	.001		10000
18013	72-54-8	P,P'-DDD	673	NG/L	0.4		10000
18014	50-29-3_TOT	DDT TOTAL	2311	MG/KG			0.4
18015	53-19-0	O,P'-DDD	718	UG/L	.001		900000
18019	50-29-3_TOT_CALC	DDT TOTAL (CALCD.)	733	UG/L			
18020	72-55-9	P,P'-DDE	718	UG/L	.001		100000
18021	72-55-9	P,P'-DDE	719	MG/KG			500000
18022	72-55-9	P,P'-DDE	722	UG/L	.001		10000
18023	72-54-8	P,P'-DDD	718	UG/L	.001		10000
18024	72-54-8	P,P'-DDD	722	UG/L	.001		10000
18025	3424-82-6	O,P'-DDE	718	UG/L	.001		900000
18026	72-55-9	P,P'-DDE	675	MG/KG	.001		10000
18027	789-02-6	O,P'-DDT	673	NG/L	0.4		
18028	50-29-3	P,P'-DDT	673	NG/L	0.4		

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VMV CODE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
18029	72-55-9	P,P'-DDE	673	NG/L	0.4		
18030	72-43-5	METHOXYCHLOR	718	UG/L	.01		100000
18031	72-43-5	METHOXYCHLOR	719	MG/KG	.05		500000
18032	2921-88-2	CHLORPYRIFOS	718	UG/L	.1		500000
18033	72-43-5	METHOXYCHLOR	722	UG/L	.001		10000
18034	72-43-5	METHOXYCHLOR	675	MG/KG	.001		10000
18035	72-43-5	METHOXYCHLOR	673	NG/L	0.4		
18039	76-44-8	HEPTACHLOR	673	NG/L	0.4		
18040	76-44-8	HEPTACHLOR	718	UG/L	.001		100000
18041	76-44-8	HEPTACHLOR	719	MG/KG			500000
18042	76-44-8	HEPTACHLOR	722	UG/L	.001		10000
18043	76-44-8	HEPTACHLOR	675	MG/KG	.001		10000
18044	1024-57-3	HEPTACHLOR EPOXIDE	673	NG/L	0.4		
18045	1024-57-3	HEPTACHLOR EPOXIDE	718	UG/L	.001		100000
18046	1024-57-3	HEPTACHLOR EPOXIDE	719	MG/KG			500000
18047	1024-57-3	HEPTACHLOR EPOXIDE	722	UG/L	.001		10000
18048	1024-57-3	HEPTACHLOR EPOXIDE	675	MG/KG	.001		10000
18049	1024-57-3_CALC	HEPTACHLOR EPOXIDE (CALCD.)	760	UG/L			
18050	959-98-8	ALPHA-ENDOSULFAN	718	UG/L	.005		100000
18051	959-98-8	ALPHA-ENDOSULFAN	719	UG/L	.01		
18052	115-29-7	ENDOSULFAN SULPHATE TOTAL	718	UG/L	.1		10000
18053	959-98-8	ALPHA-ENDOSULFAN	722	UG/L	.001		10000
18054	959-98-8	ALPHA-ENDOSULFAN	675	MG/KG	.001		10000
18055	33213-65-9	BETA-ENDOSULFAN	718	UG/L	.005		100000
18056	33213-65-9	BETA-ENDOSULFAN	719	MG/KG	.01		500000
18057	33213-65-9	BETA-ENDOSULFAN	722	UG/L	.001		10000
18058	33213-65-9	BETA-ENDOSULFAN	675	MG/KG	.001		10000
18059	5103-71-9	ALPHA-CHLORDANE	673	NG/L	0.4		
18060	5103-71-9	ALPHA-CHLORDANE	718	UG/L	.005		100000
18061	5103-71-9	ALPHA-CHLORDANE	719	MG/KG	.005		500000
18062	5103-71-9	ALPHA-CHLORDANE	722	UG/L	.001		10000
18063	5103-71-9	ALPHA-CHLORDANE	675	MG/KG	.001		10000
18064	5103-74-2	GAMMA-CHLORDANE	673	NG/L	0.4		
18065	5103-74-2	GAMMA-CHLORDANE	718	UG/L	.005		100000
18066	5103-74-2	GAMMA-CHLORDANE	719	MG/KG	.005		500000
18067	5103-74-2	GAMMA-CHLORDANE	722	UG/L	.001		10000
18068	5103-74-2	GAMMA-CHLORDANE	675	MG/KG	.001		10000
18069	57-74-9	CHLORDANE TOTAL ISOMERS (CALCD.)	780	UG/L			
18070	58-89-9	GAMMA-BENZENEHEXACHLORIDE	718	UG/L	.001		100000
18071	58-89-9	GAMMA-BENZENEHEXACHLORIDE	719	MG/KG			500000
18072	58-89-9	GAMMA-BENZENEHEXACHLORIDE	722	UG/L	.001		10000
18073	319-86-8	DELTA-BENZENEHEXACHLORIDE	718	UG/L	.001		10000
18074	319-84-6	ALPHA-BENZENEHEXACHLORIDE	675	MG/KG	.001		10000
18075	319-84-6	ALPHA-BENZENEHEXACHLORIDE	786	UG/L			900000
18076	319-84-6	ALPHA-BENZENEHEXACHLORIDE	719	MG/KG			500000
18077	319-84-6	ALPHA-BENZENEHEXACHLORIDE	722	UG/L	.001		10000
18078	319-85-7	BETA-BENZENEHEXACHLORIDE	718	UG/L	.001		10000
18079	58-89-9	GAMMA-BENZENEHEXACHLORIDE	675	MG/KG	.001		10000
18080	72-56-01	ETHYLAN	786	UG/L			900000
18081	319-84-6	ALPHA-BENZENEHEXACHLORIDE	673	NG/L	0.4		
18083	58-89-9	GAMMA-BENZENEHEXACHLORIDE	673	NG/L	0.4		
18085	959-98-8	ALPHA-ENDOSULFAN	673	NG/L	0.4		
18087	33213-65-9	BETA-ENDOSULFAN	673	NG/L	0.4		
18090	8001-35-2	CAMPHECHLOR	786	UG/L			900000
18100	115-32-2	DICOFOL	786	UG/L			900000
18110	584-79-2	ALLETHRIN	786	UG/L			900000
18120	97-11-0	CYCLETHERIN	786	UG/L			900000
18124	2385-85-5	MIREX	668	MG/KG	.004		
18125	2385-85-5	MIREX	718	UG/L	.001		100000
18126	2385-85-5	MIREX	722	UG/L	.001		10000
18127	2385-85-5	MIREX	673	NG/L	0.4		
18128	2385-85-5	MIREX	675	MG/KG	.001		10000
18129	2385-85-5	MIREX	719	MG/KG	.001		500000
18130	309-00-2	ALDRIN	718	UG/L	.001		100000
18131	309-00-2	ALDRIN	719	MG/KG			500000
18132	309-00-2	ALDRIN	722	UG/L	.001		10000
18133	309-00-2	ALDRIN	675	MG/KG	.001		10000
18134	309-00-2	ALDRIN	673	NG/L	0.4		
18139	ALDI-100	ALDRIN + HEOD (DIELDRIN) (CALCD.)	811	NG/L			
18140	72-20-8	ENDRIN	718	UG/L	.01		10000
18141	72-20-8	ENDRIN	719	MG/KG	.01		500000
18142	72-20-8	ENDRIN	722	UG/L	.001		10000
18143	72-20-8	ENDRIN	675	MG/KG	.001		10000
18144	72-20-8	ENDRIN	673	NG/L	0.4		
18150	60-57-1	DIELDRIN	718	UG/L	.005		10000
18151	60-57-1	DIELDRIN	719	MG/KG			500000
18152	60-57-1	DIELDRIN	722	UG/L	.001		10000

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VMV CODE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
18153	60-57-1	DIELDRIN	675	MG/KG	.001		10000
18154	60-57-1	DIELDRIN	673	NG/L	0.4		
18155	99-30-9	DICLORAN	718	UG/L	.1		10000
18158	1336-36-3	POLYCHLORINATED BIPHENYLS	673	NG/L	0.9		
18159	53469-21-9	AROCLOR 1242	718	UG/L			10000
18160	11097-69-1	AROCLOR 1254	786	UG/L	.002		10000
18161	12672-29-6	AROCLOR 1248	786	UG/L	.002		10000
18162	11096-82-5	AROCLOR 1260	786	UG/L	.005		10000
18163	12674-11-2	AROCLOR 1016	786	UG/L			10000
18164	12767-79-2	AROCLOR	829	UG/L			100000
18165	11097-69-1	AROCLOR 1254	719	MG/KG	.002		10000
18166	12672-29-6	AROCLOR 1248	719	MG/KG	.002		10000
18167	11096-82-5	AROCLOR 1260	719	MG/KG	.005		10000
18168	12767-79-2	AROCLOR	718	UG/L	.1		500000
18169	12767-79-2	AROCLOR	719	MG/KG	.005		10000
18170	133-06-2	CAPTAN	786	UG/L			900000
18172	53469-21-9	AROCLOR 1242	719	MG/KG	.005		10000
18173	53469-21-9	AROCLOR 1242	722	UG/L	.02		10000
18174	11097-69-1	AROCLOR 1254	722	UG/L	.02		10000
18175	11096-82-5	AROCLOR 1260	722	UG/L	.02		10000
18176	12767-79-2	AROCLOR	722	UG/L	.02		10000
18177	12767-79-2	AROCLOR	675	MG/KG	.01		10000
18179	12767-79-2	AROCLOR	668	MG/KG	.09		
18180	101-27-9	BARBAN	843	UG/L	.4		10000
18181	101-27-9	BARBAN	911	UG/L	.11		
18186	101-27-9	BARBAN	918	MG/KG	.022		
18190	86-50-0	AZINPHOS METHYL	843	UG/L	.1		10000
18195	2642-71-9	AZINPHOS ETHYL	847	UG/L			5000000
18200	56-72-4	COUMAPHOS	786	UG/L			5000000
18205	732-11-6	PHOSMET TOTAL	847	UG/L			5000000
18210	2921-88-2	CHLORPYRIFOS	786	UG/L			5000000
18215	298-04-4	DISULFOTON	718	UG/L	.1		100000
18220	55-38-9	FENTHION	786	UG/L			5000000
18225	470-90-6	CHLORFENVINPHOS TOTAL	718	UG/L	.1		10000
18230	299-86-5	CRUFOMATE	847	UG/L			5000000
18231	70776-03-3	CHLORINATED NAPHTHALENES	718	UG/L	.1		10000
18240	56-38-2	PARATHION	847	UG/L			5000000
18245	298-00-0	PARATHION METHYL	847	UG/L			5000000
18250	121-75-5	MALATHION	847	UG/L			5000000
18255	2310-17-0	PHOSALONE TOTAL	718	UG/L	.1		10000
18260	299-84-3	FENCHLORPHOS	847	UG/L			5000000
18265	732-11-6	PHOSMET TOTAL	718	UG/L	.1		10000
18270	333-41-5	DIAZINON	847	UG/L			5000000
18275	21609-90-5	LEPTOPHOS TOTAL	718	UG/L	.1		10000
18280	62-73-7	DICHLORVOS	786	UG/L			5000000
18285	FENS-100	FENSULFOTHION TOTAL	718	UG/L	.1		10000
18290	3383-96-8	TEMEPHOS	786	UG/L			5000000
18295	97-17-6	DICHLOFENTHION TOTAL	718	UG/L	.1		10000
18300	298-02-2	PHORATE	847	UG/L			5000000
18310	563-12-2	ETHION	847	UG/L			5000000
18320	786-19-6	CARBOPHENOTHION	847	UG/L			5000000
18325	953-17-3	METHYLCARBOPHENOTHION	847	UG/L			5000000
18330	122-14-5	FENITROTHION	847	UG/L			500000
18331	122-14-5	FENITROTHION	873	UG/L	.01		
18332	2032-59-9	AMINOCARB	874	UG/L	.5		500000
18333	2032-59-9	AMINOCARB	875	UG/L	.05		500000
18334	2032-59-9	AMINOCARB	911	UG/L	.09		
18335	13171-21-6	PHOSPHAMIDON	718	UG/L	.1		10000
18339	2032-59-9	AMINOCARB	918	MG/KG	.018		
18340	60-51-5	DIMETHOATE	847	UG/L			5000000
18350	26718-65-0	MEVINPHOS	786	UG/L			5000000
18360	2303-16-4	DIALLATE	843	UG/L	.1		10000
18363	2303-17-5	TRIALLATE	882	UG/L	.01		
18366	40843-25-2	HOEGRASS	882	UG/L	.05		
18368	22212-55-1	BENZOYLPROP-ETHYL	882	UG/L	.025		
18370	1582-09-8	TRIFLURALIN	843	UG/L	.005		10000
18380	76-03-9	TRICHLOROACETIC ACID	886	UG/L	.05		10000
18390	75-99-0	DALAPON	886	UG/L	.05		10000
18397	63-25-2	CARBARYL	918	MG/KG	.008		
18399	63-25-2	CARBARYL	911	UG/L	.04		
18400	63-25-2	CARBARYL	786	UG/L			5000000
18401	63-25-2	CARBARYL	891	UG/L	.5		10000
18402	2032-65-7	METHIOCARB	892	UG/L	.5		10000
18403	759-94-4	CARBAMATE EPTC	893	UG/L	.5		10000
18404	1079-33-0	MOBAM	952	UG/L	.5		10000
18405	114-26-1	PROPOXUR	952	UG/L	.5		10000
18406	114-26-1	PROPOXUR	911	UG/L	.1		

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VMV CODE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
18407	114-26-1	PROPOXUR	918	MG/KG	.02		
18408	1079-33-0	MOBAM	911	UG/L	.06		
18409	1079-33-0	MOBAM	918	MG/KG	.012		
18410	22212-55-1	BENZOYLPROP-ETHYL	900	UG/L	.01		10000
18415	ATRA-100	ATRAZINE TOTAL	882	UG/L	.1		100000
18416	6190-65-4	ATRAZINE DE-ETHYLATED	718	UG/L	.1		50000
18417	TRIA-100	TRIAZINES TOTAL (CALCD.)	903	UG/L			
18418	1007-28-9	ATRAZINE DE-ISOPROPYLATED	786	UG/L	.02		100000
18419	6190-65-4	ATRAZINE DE-ETHYLATED	786	UG/L	.02		100000
18420	SIMA-100	SIMAZINE TOTAL	786	UG/L	.1		10000
18421	1912-24-9	ATRAZINE	2349	UG/L	0.05		100.00
18422	21087-64-9	METRIBUZIN	2349	UG/L	0.05		10.00
18425	1610-18-0	PROMETON	786	UG/L	.1		10000
18430	22936-86-3	CYPRAZINE TOTAL	786	UG/L	.1		10000
18435	METR-100	METRIBUZIN TOTAL	786	UG/L	.1		10000
18440	CYAN-100	CYANAZINE TOTAL	786	UG/L	.1		10000
18442	2032-65-7	METHIOCARB	911	UG/L	.1		
18443	16752-77-5	METHOMYL	911	UG/L	.11		
18444	116-06-3	ALDICARB	911	UG/L	.09		
18445	122-42-9	PROPHAM	911	UG/L	.09		
18446	23103-98-2	PIRIMICARB	911	UG/L	.3		
18447	101-21-3	CHLORPROPHAM	911	UG/L	.1		
18448	315-18-4	MEXACARBATE	911	UG/L	.32		
18452	2032-65-7	METHIOCARB	918	MG/KG	.02		
18453	16752-77-5	METHOMYL	918	MG/KG	.022		
18454	116-06-3	ALDICARB	918	MG/KG	.018		
18455	122-42-9	PROPHAM	918	MG/KG	.018		
18456	23103-98-2	PIRIMICARB	918	MG/KG	.06		
18457	101-21-3	CHLORPROPHAM	918	MG/KG	.02		
18458	315-18-4	MEXACARBATE	918	MG/KG	.064		
18460	116-06-3	ALDICARB	2349	UG/L	1.00		10.00
18461	2008-41-5	BUTILATE	2349	UG/L	0.03		10.00
18462	1563-66-2	CARBOFURAN	2349	UG/L	0.05		100.00
18463	333-41-5	DIAZINON	2349	UG/L	0.01		5000.00
18464	298-00-0	PARATHION METHYL	2349	UG/L	0.05		100.00
18465	121-75-5	MALATHION	2349	UG/L	0.05		5000.00
18466	122-14-5	FENITROTHION	2349	UG/L	0.05		500.00
18467	56-38-2	PARATHION	2349	UG/L	0.05		5000.00
18468	298-02-2	PHORATE	2349	UG/L	0.10		5000.00
18469	15972-60-8	ALACHLOR	2349	UG/L	0.10		100.00
18470	51218-45-2	METOLACHLOR	2349	UG/L	0.10		100.00
18471	94-74-6	MCPA	2349	UG/L	10.00		1000.00
18472	94-75-7	2,4-D	2349	UG/L	0.05		100.00
18473	120-36-5	DICHLORPROP	2349	UG/L	0.05		100.00
18474	95-95-4	2,4,5-TRICHLOROPHENOL	2349	UG/L	0.02		100.00
18475	93-76-5	2,4,5-T	2349	UG/L	0.04		100.00
18476	99-30-9	DICLORAN	2349	UG/L	0.05		10.00
18480	118-74-1	HEXACHLOROBENZENE	2349	UG/L	0.002		500.000
18481	76-44-8	HEPTACHLOR	2349	UG/L	0.002		100.000
18482	309-00-2	ALDRIN	2349	UG/L	0.002		100.000
18483	72-55-9	P,P'-DDE	2349	UG/L	0.002		100.000
18484	2385-85-5	MIREX	2349	UG/L	0.005		100.000
18485	319-84-6	ALPHA-BENZENEHEXACHLORIDE	2349	UG/L	0.001		900.000
18486	58-89-9	GAMMA-BENZENEHEXACHLORIDE	2349	UG/L	0.001		100.000
18487	319-85-7	BETA-BENZENEHEXACHLORIDE	2349	UG/L	0.001		10.000
18488	1024-57-3	HEPTACHLOR EPOXIDE	2349	UG/L	0.001		100.000
18489	5103-71-9	ALPHA-CHLORDANE	2349	UG/L	0.001		100.000
18490	5103-74-2	GAMMA-CHLORDANE	2349	UG/L	0.001		100.000
18491	53-19-0	O,P'-DDD	2349	UG/L	0.001		900.000
18492	789-02-6	O,P'-DDT	2349	UG/L	0.003		100.000
18493	72-54-8	P,P'-DDD	2349	UG/L	0.005		100.000
18494	50-29-3	P,P'-DDT	2349	UG/L	0.005		100.000
18495	72-43-5	METHOXYCHLOR	2349	UG/L	0.10		100.00
18496	959-98-8	ALPHA-ENDOSULFAN	2349	UG/L	0.003		100.000
18497	60-57-1	DIELDRIN	2349	UG/L	0.003		100.000
18498	72-20-8	ENDRIN	2349	UG/L	0.004		10.0000
18499	33213-65-9	BETA-ENDOSULFAN	2349	UG/L	0.005		100.000
18500	94-75-7	2,4-D	786	UG/L			500000
18501	94-75-7	2,4-D	926	MG/KG	.004		100000
18502	1928-38-7	2,4-D METHYL ESTER	786	UG/L			500000
18503	94-75-7	2,4-D	928	UG/L	.03		
18504	944-22-9	FONOFOS	2349	UG/L	0.05		
18505	122-34-9	SIMAZINE	2349	UG/L	0.1		
18506	21725-46-2	CYANAZINE	2349	UG/L	0.2		
18507	53469-21-9	AROCLOR 1242	2349	UG/L	0.01		
18508	11097-69-1	AROCLOR 1254	2349	UG/L	0.01		
18509	11096-82-5	AROCLOR 1260	2349	UG/L	0.01		

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VMV CODE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
18510	93-76-5	2,4,5-T	786	UG/L			500000
18511	93-76-5	2,4,5-T	926	MG/KG	.002		100000
18512	1928-37-6	2,4,5-T METHYL ESTER	786	UG/L			500000
18513	93-76-5	2,4,5-T	928	UG/L	.05		
18515	120-36-5	DICHLORPROP	926	MG/KG	.004		100000
18516	120-36-5	DICHLORPROP	928	UG/L	.03		
18520	94-74-6	MCPA	786	UG/L			50000000
18521	94-81-5	MCPB	936	UG/L	2.5		500000
18522	PHEN-100	PHENYL ACTIVES TOTAL (CALCD.)	937	UG/L			
18523	94-74-6	MCPA	938	UG/L	.03		100000
18524	94-81-5	MCPB	938	UG/L	.05		100000
18530	1918-00-9	DICAMBA	938	UG/L	.03		500000
18535	50-31-7	2,3,6-TBA	928	UG/L	.03		
18540	93-72-1	FENOPROP	786	UG/L			500000
18541	93-72-1	FENOPROP	928	UG/L	.03		
18542	93-72-1	FENOPROP	926	MG/KG	.004		100
18549	94-82-6	2,4-DB	928	UG/L	.05		
18550	94-82-6	2,4-DB	786	UG/L			500000
18551	18625-12-2	2,4-DB METHYL ESTER	786	UG/L			500000
18552	94-82-6	2,4-DB	926	MG/KG	.009		100000
18555	120-36-5	DICHLORPROP	786	UG/L			500000
18556	57153-17-0	DICHLORPROP METHYL ESTER	786	UG/L			500000
18570	1563-66-2	CARBOFURAN	951	UG/L	1		100000
18571	1563-66-2	CARBOFURAN	952	UG/L	.1		10000
18572	16709-30-1	CARBOFURAN 3-KETO	952	UG/L	.1		10000
18573	1563-66-2	CARBOFURAN	911	UG/L	.05		
18578	1563-66-2	CARBOFURAN	918	MG/KG	.01		
18599	1918-02-1	PICLORAM	928	UG/L	.05		
18600	1918-02-1	PICLORAM	786	UG/L			5000000
18601	1918-02-1	PICLORAM	958	UG/L	.2		5000000
18602	50-29-3	P,P'-DDT	719	MG/KG			
18606	789-02-6	O,P'-DDT	719	MG/KG			
18611	72-54-8	P,P'-DDD	719	MG/KG			
18621	72-55-9	P,P'-DDE	719	MG/KG			
18629	2385-85-5	MIREX	719	MG/KG			
18631	72-43-5	METHOXYCHLOR	719	MG/KG			
18632	309-00-2	ALDRIN	719	MG/KG			
18641	76-44-8	HEPTACHLOR	719	MG/KG			
18642	72-20-8	ENDRIN	719	MG/KG			
18646	1024-57-3	HEPTACHLOR EPOXIDE	719	MG/KG			
18651	959-98-8	ALPHA-ENDOSULFAN	719	MG/KG			
18652	60-57-1	DIELDRIN	719	MG/KG			
18656	33213-65-9	BETA-ENDOSULFAN	719	MG/KG			
18661	5103-71-9	ALPHA-CHLORDANE	719	MG/KG			
18666	5103-74-2	GAMMA-CHLORDANE	719	MG/KG			
18669	12767-79-2	AROCLOR	719	MG/KG			
18671	58-89-9	GAMMA-BENZENEHEXACHLORIDE	719	MG/KG			
18676	319-84-6	ALPHA-BENZENEHEXACHLORIDE	719	MG/KG			
18700	4685-14-7	PARAQUAT	786	UG/L			5000000
18710	2764-72-9	DIQUAT	786	UG/L			5000000
18800	112-56-1	LETHANE 384	786	UG/L			5000000
18803	ORCIN-200	P,P'-DDD OLEFIN	980	UG/L			
18814	68535-69-3	BHC	980	UG/L			
18900	50-32-8	BENZO(A)PYRENE	982	UG/L	.0002		
18901	205-99-2	BENZO(B)FLUORANTHENE	982	UG/L	.005		
18902	191-24-2	BENZO(G,H,I)PERYLENE	982	UG/L	.0006		
18903	207-08-9	BENZO(K)FLUORANTHENE	982	UG/L	.0002		
18904	206-44-0	FLUORANTHENE	982	UG/L	.0003		
18905	193-39-5	INDENO(1,2,3-C,D)PYRENE	982	UG/L	.0015		
18906	129-00-0	PYRENE	982	UG/L	.001		
18907	192-97-2	BENZO(E)PYRENE	982	UG/L	.0025		
18908	205-82-3	BENZO(J)FLUORANTHENE	982	UG/L	.0025		
18910	50-32-8	BENZO(A)PYRENE	991	MG/KG	.0007		
18911	205-99-2	BENZO(B)FLUORANTHENE	991	MG/KG	.0007		
18912	191-24-2	BENZO(G,H,I)PERYLENE	991	MG/KG	.001		
18913	207-08-9	BENZO(K)FLUORANTHENE	991	MG/KG	.0003		
18914	206-44-0	FLUORANTHENE	991	MG/KG	.001		
18915	193-39-5	INDENO(1,2,3-C,D)PYRENE	991	MG/KG	.001		
18916	129-00-0	PYRENE	1007	MG/KG	.05		
18917	192-97-2	BENZO(E)PYRENE	1007	MG/KG	.03		
18918	205-82-3	BENZO(J)FLUORANTHENE	1007	MG/KG	.13		
18920	198-55-0	PERYLENE	982	UG/L	.00001		
18921	86-73-7	FLUORENE	982	UG/L	.0015		
18922	217-59-4	TRIPHENYLENE	982	UG/L	.0003		
18923	218-01-9	CHRYSENE	982	UG/L	.001		
18924	214-17-5	BENZO(B)CHRYSENE	982	UG/L	.0001		
18925	56-55-3	BENZ(A)ANTHRACENE	982	UG/L	.0001		

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VMV CODE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
18926	53-70-3	DIBENZ(A,H)ANTHRACENE	982	UG/L	.0003		
18930	198-55-0	PERYLENE	1007	MG/KG	.1		
18931	86-73-7	FLUORENE	1007	MG/KG	.01		
18932	217-59-4	TRIPHENYLENE	1007	MG/KG	.02		
18933	218-01-9	CHRYSENE	1007	MG/KG	.05		
18934	214-17-5	BENZO(B)CHRYSENE	1007	MG/KG	.01		
18935	56-55-3	BENZ(A)ANTHRACENE	1007	MG/KG	.01		
18936	53-70-3	DIBENZ(A,H)ANTHRACENE	1007	MG/KG	.02		
18940	95-13-6	INDENE	918	MG/KG			
18942	119-64-2	1,2,3,4-TETRAHYDRONAPHTHALENE	918	MG/KG			
18944	90-12-0	1-METHYLNAPHTHALENE	918	MG/KG			
18946	91-57-6	2-METHYLNAPHTHALENE	918	MG/KG			
18948	91-58-7	2-CHLORONAPHTHALENE	918	MG/KG			
18950	83-32-9	ACENAPHTHENE	918	MG/KG			
18952	91-22-5	QUINOLINE	918	MG/KG			
18954	83-32-9	ACENAPHTHENE	918	MG/KG			
18956	85-01-8	PHENANTHRENE	918	MG/KG			
18958	206-44-0	FLUORANTHENE	918	MG/KG			
18960	131-11-3	DIMETHYL PHTHALATE	1024	NG/L			
18961	84-66-2	DIETHYL PHTHALATE	1024	NG/L			
18962	84-74-2	DI-N-BUTYL PHTHALATE	1024	NG/L			
18963	85-68-7	BUTYLBENZYL PHTHALATE	1024	NG/L			
18964	117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	1024	NG/L			
18965	117-84-0	DI-N-OCTYL PHTHALATE	1024	NG/L			
18970	95-13-6	INDENE	847	NG/L	50		
18971	119-64-2	1,2,3,4-TETRAHYDRONAPHTHALENE	847	NG/L	50		
18972	91-22-5	QUINOLINE	847	NG/L	50		
18973	91-57-6	2-METHYLNAPHTHALENE	847	NG/L	50		
18974	90-12-0	1-METHYLNAPHTHALENE	847	NG/L	50		
18975	91-58-7	2-CHLORONAPHTHALENE	847	NG/L	50		
18976	83-32-9	ACENAPHTHENE	1038	NG/L	50		
18977	83-32-9	ACENAPHTHENE	847	NG/L	50		
18978	86-73-7	FLUORENE	1038	NG/L	50		
18979	85-01-8	PHENANTHRENE	847	NG/L	50		
18980	206-44-0	FLUORANTHENE	847	NG/L	50		
18981	129-00-0	PYRENE	847	NG/L	50		
18999	PEST-100	PESTICIDES TOTAL (CALCD.)	1042	UG/L			
19001	K_TOT	POTASSIUM TOTAL	438	MG/L			
19002	K_TOT	POTASSIUM TOTAL	59	MG/L			
19005	K_TOT	POTASSIUM TOTAL	440	MG/L	0.2		
19006	K_TOT	POTASSIUM TOTAL	2305	MG/L	0.01		40.0
19008	K_TOT	POTASSIUM TOTAL	441	UG/L	0.20		
19050	K_TOT	POTASSIUM TOTAL	58	MG/KG	100		
19051	K_TOT	POTASSIUM TOTAL	2312	MG/KG	0.5		35000
19101	K_DIS	POTASSIUM DISSOLVED	1048	MG/L	0.1		1000
19102	K_DIS	POTASSIUM DISSOLVED	444	MG/L	0.1		1000
19103	K_DIS	POTASSIUM DISSOLVED	445	MG/L	0.02		1000
19104	K_DIS	POTASSIUM DISSOLVED	440	MG/L			1000
19105	K_DIS	POTASSIUM DISSOLVED	1052	MG/L			500
19106	K_DIS	POTASSIUM DISSOLVED	448	MG/L	0.1		500
19107	K_DIS	POTASSIUM DISSOLVED	445	MG/L			1000
19111	K_DIS	POTASSIUM DISSOLVED	1516	MG/L	0.3		100
19115	K_DIS	POTASSIUM DISSOLVED	1502	MG/L	0.001		
19116	K_DIS	POTASSIUM DISSOLVED	451	MG/L	0.01		100
19301	K_EXTR	POTASSIUM EXTRACTABLE	1058	MG/L	0.01		
19311	K_EXTR	POTASSIUM EXTRACTABLE	455	MG/L	0.5		
19312	K_EXTR	POTASSIUM EXTRACTABLE	2305	MG/L	0.01		40.0
19321	K_EXTR	POTASSIUM EXTRACTABLE	1526	UG/L	200		100
19330	K_EXTR	POTASSIUM EXTRACTABLE	2346	MG/KG	4.0		
19401	K2O	K2O	457	%			10
19451	K_TOT	POTASSIUM TOTAL	1728	MG/L			
20003	CA_TOT	CALCIUM TOTAL	459	MG/L	0.002		999
20004	CA_TOT	CALCIUM TOTAL	59	MG/L			
20005	CA_TOT	CALCIUM TOTAL	440	MG/L	0.05		
20007	CA_TOT	CALCIUM TOTAL	441	UG/L			
20050	CA_TOT	CALCIUM TOTAL	58	MG/KG	10.0		
20051	CA_TOT	CALCIUM TOTAL	2313	MG/KG			500000
20100	CA_DIS	CALCIUM DISSOLVED	1067	MG/L			
20101	CA_DIS	CALCIUM DISSOLVED	1068	MG/L	0.5		90000
20102	CA_DIS	CALCIUM DISSOLVED	1069	MG/L			10000
20103	CA_DIS	CALCIUM DISSOLVED	1070	MG/L	0.05		9990
20104	CA_DIS	CALCIUM DISSOLVED	59	MG/L			2000
20105	CA_DIS_CALC	CALCIUM DISSOLVED (CALCD.)	1072	MG/L			
20106	CA_HARDNESS	CALCIUM HARDNESS	1073	MG/L	1.0		90000
20107	CA_DIS	CALCIUM DISSOLVED	1070	MG/L	1.0		999
20108	CA_DIS	CALCIUM DISSOLVED	1070	MG/L			999
20109	CA_HARDNESS	CALCIUM HARDNESS	1073	MG/L			

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VMV CODE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
20110	CA_DIS	CALCIUM DISSOLVED	469	MG/L			100
20111	CA_DIS	CALCIUM DISSOLVED	1516	MG/L	0.006		999.999
20115	CA_DIS	CALCIUM DISSOLVED	1502	MG/L	0.001		
20301	CA_EXTR	CALCIUM EXTRACTABLE	459	MG/L	0.1		1000
20311	CA_EXTR	CALCIUM EXTRACTABLE	455	MG/L	0.50		
20312	CA_EXTR	CALCIUM EXTRACTABLE	2322	MG/L	0.50		400
20321	CA_EXTR	CALCIUM EXTRACTABLE	1526	UG/L	100		100
20330	CA_EXTR	CALCIUM EXTRACTABLE	2346	MG/KG	2.0		
20401	CAO	CAO	457	%			25
20451	CA_TOT	CALCIUM TOTAL	1728	MG/L	0.01		
22009	TI_TOT	TITANIUM TOTAL	1502	MG/L	0.001		
22011	TI_TOT	TITANIUM TOTAL	1503	UG/L	1		50
22111	TI_DIS	TITANIUM DISSOLVED	1516	UG/L	1		50
22211	TI_EXTR	TITANIUM EXTRACTABLE	1519	UG/L	1		50
22401	TIO2	TIO2	457	%			2
23001	V_TOT	VANADIUM TOTAL	1089	MG/L	.05		10000
23002	V_TOT	VANADIUM TOTAL	1090	MG/L	.0005		10000
23003	V_TOT	VANADIUM TOTAL	1091	MG/L	.002		
23009	V_TOT	VANADIUM TOTAL	1502	MG/L	.002		
23011	V_TOT	VANADIUM TOTAL	1503	UG/L	2		50
23012	V_TOT	VANADIUM TOTAL	441	UG/L	0.02		
23020	V_TOT_REC	VANADIUM TOTAL RECOVERABLE	1095	MG/L	.001		
23050	V_TOT	VANADIUM TOTAL	58	MG/KG	50.0		
23053	V_TOT	VANADIUM TOTAL	486	MG/KG	5		150
23101	V_DIS	VANADIUM DISSOLVED	1098	MG/L	.05		10000
23102	V_DIS	VANADIUM DISSOLVED	1095	MG/L	.0005		5000
23109	V_DIS	VANADIUM DISSOLVED	1502	MG/L	.001		
23111	V_DIS	VANADIUM DISSOLVED	1516	UG/L	2		5000
23201	V_EXTR	VANADIUM EXTRACTABLE	1098	MG/L	.05		10000
23202	V_EXTR	VANADIUM EXTRACTABLE	1095	MG/L	.0005		5000
23211	V_EXTR	VANADIUM EXTRACTABLE	1519	UG/L	2		5000
23301	V_EXTR	VANADIUM EXTRACTABLE	1098	MG/L	.05		10000
23302	V_EXTR	VANADIUM EXTRACTABLE	1095	MG/L	.0005		50000
23303	V_EXTR	VANADIUM EXTRACTABLE	1107	MG/L	.002		
23311	V_EXTR	VANADIUM EXTRACTABLE	1502	MG/L	.001		
23321	V_EXTR	VANADIUM EXTRACTABLE	1526	UG/L	1		1000
23330	V_TOT	VANADIUM TOTAL	1520	MG/L	0.01		2.500
23401	V	VANADIUM	82	MG/L			300
23403	V_EXTR	VANADIUM EXTRACTABLE	2346	MG/KG	0.01		
24000	CR_TOT	CHROMIUM TOTAL	1113	MG/L			
24001	CR_TOT	CHROMIUM TOTAL	1112	MG/L			10000
24002	CR_TOT	CHROMIUM TOTAL	1113	MG/L	.01		10000
24003	CR_TOT	CHROMIUM TOTAL	1114	MG/L	.002		10000
24004	CR_TOT	CHROMIUM TOTAL	481	MG/L			
24006	CR_TOT	CHROMIUM TOTAL	1116	MG/L	.001		1000
24009	CR_TOT	CHROMIUM TOTAL	1502	MG/L	.002		
24011	CR_TOT	CHROMIUM TOTAL	1503	UG/L	2		500
24012	CR_TOT	CHROMIUM TOTAL	441	UG/L	0.02		
24020	CR_TOT_REC	CHROMIUM TOTAL RECOVERABLE	2365	MG/L			
24049	CR_TOT_LOAD	CHROMIUM TOTAL (CALCD.) LOAD	1120	KG/DAY			
24050	CR_TOT	CHROMIUM TOTAL	58	MG/KG	10.0		
24051	CR_TOT	CHROMIUM TOTAL	1122	MG/KG	0.5		1000
24053	CR_TOT	CHROMIUM TOTAL	1123	MG/KG	5.0		500
24054	CR_NON-RES	CHROMIUM NON-RES	487	MG/KG	0.5		5000
24055	CR_TOT	CHROMIUM TOTAL	1508	MG/KG	100.0		
24056	CR_DIS	CHROMIUM DISSOLVED	481	MG/L	.005		
24101	CR_+6	CHROMIUM HEXAVALENT	1127	MG/L			10
24102	CR_+6_DIS	CHROMIUM HEXAVALENT DISSOLVED	1128	UG/L	1.0		50000
24103	CR_+6_DIS	CHROMIUM HEXAVALENT DISSOLVED	1128	MG/L			
24104	CR_DIS	CHROMIUM DISSOLVED	1113	MG/L	.01		10000
24105	CR_DIS	CHROMIUM DISSOLVED	1114	MG/L	.0002		10000
24109	CR_DIS	CHROMIUM DISSOLVED	1132	MG/L	.0001		
24111	CR_DIS	CHROMIUM DISSOLVED	1516	UG/L	2		10000
24202	CR_EXTR	CHROMIUM EXTRACTABLE	2363	MG/L	.01		10000
24203	CR_EXTR	CHROMIUM EXTRACTABLE	1114	MG/L	.0002		10000
24211	CR_EXTR	CHROMIUM EXTRACTABLE	1519	MG/L	.002		10000
24302	CR_EXTR	CHROMIUM EXTRACTABLE	1113	MG/L	.01		10000
24303	CR_EXTR	CHROMIUM EXTRACTABLE	1114	MG/L	.002		10000
24305	CR_EXTR	CHROMIUM EXTRACTABLE	1139	MG/L	.001		
24306	CR_EXTR	CHROMIUM EXTRACTABLE	481	UG/L			3000
24311	CR_EXTR	CHROMIUM EXTRACTABLE	1502	MG/L	.001		
24321	CR_EXTR	CHROMIUM EXTRACTABLE	1526	UG/L	1		2000
24350	CR_EXTR	CHROMIUM EXTRACTABLE	1143	UG/L			300
24360	CR_TOT	CHROMIUM TOTAL	1520	MG/L	0.01		2.500
24401	CR_EXTR	CHROMIUM EXTRACTABLE	82	MG/KG			850
24430	CR_EXTR	CHROMIUM EXTRACTABLE	2346	MG/KG	0.02		
24601	CR_EXTR	CHROMIUM EXTRACTABLE	1529	MG/KG	0.2		100

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VMV CODE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
24602	CR_EXTR	CHROMIUM EXTRACTABLE	1530	MG/KG	0.25		
25003	MN_TOT	MANGANESE TOTAL	1502	MG/L	.001		
25004	MN_TOT	MANGANESE TOTAL	1161	MG/L	.01		50000
25005	MN_TOT	MANGANESE TOTAL	1149	MG/L	.001		10000
25008	MN_TOT	MANGANESE TOTAL	479	MG/L	.04		10000
25009	MN_TOT	MANGANESE TOTAL	1151	MG/L			
25010	MN_TOT	MANGANESE TOTAL	1502	MG/L	.001		
25011	MN_TOT	MANGANESE TOTAL	1503	UG/L	1		50000
25012	MN_TOT	MANGANESE TOTAL	441	UG/L	0.03		
25050	MN_TOT	MANGANESE TOTAL	58	MG/KG	10.0		
25051	MN_TOT	MANGANESE TOTAL	2314	MG/KG	0.5		30000
25052	MN_TOT	MANGANESE TOTAL	1508	MG/KG	30.0		
25053	MN_TOT	MANGANESE TOTAL	486	MG/KG	1		30000
25054	MN_NON-RES	MANGANESE NON-RES	487	MG/KG	0.1		4000
25101	MN_DIS	MANGANESE DISSOLVED	1159	MG/L	.01		10000
25103	MN_DIS	MANGANESE DISSOLVED	1160	MG/L			1000
25104	MN_DIS	MANGANESE DISSOLVED	1161	MG/L	.01		1000
25105	MN_DIS	MANGANESE DISSOLVED	1149	MG/L	.001		1000
25107	MN_DIS	MANGANESE DISSOLVED	481	MG/L			1000
25108	MN_DIS	MANGANESE DISSOLVED	64	MG/L	.001		1000
25109	MN_DIS	MANGANESE DISSOLVED	1502	MG/L	.001		1000
25111	MN_DIS	MANGANESE DISSOLVED	1516	UG/L	1		1000
25204	MN_EXTR	MANGANESE EXTRACTABLE	1161	MG/L	.01		1000
25205	MN_EXTR	MANGANESE EXTRACTABLE	1149	MG/L	.001		1000
25211	MN_EXTR	MANGANESE EXTRACTABLE	1519	UG/L	1		1000
25301	MN_EXTR	MANGANESE EXTRACTABLE	1170	MG/L			1000
25303	MN_EXTR	MANGANESE EXTRACTABLE	1171	MG/L			1000
25304	MN_EXTR	MANGANESE EXTRACTABLE	1172	MG/L	.01		1000
25305	MN_EXTR	MANGANESE EXTRACTABLE	1149	MG/L	.001		1000
25306	MN_EXTR	MANGANESE EXTRACTABLE	481	MG/L			1000
25309	MN_EXTR	MANGANESE EXTRACTABLE	504	MG/L	.0005		1000
25311	MN_EXTR	MANGANESE EXTRACTABLE	1502	MG/L	.001		1000
25312	MN_EXTR	MANGANESE EXTRACTABLE	2322	MG/L	0.02		32.0
25321	MN_EXTR	MANGANESE EXTRACTABLE	1526	UG/L	0.5		1000
25330	MN_EXTR	MANGANESE EXTRACTABLE	2346	MG/KG	0.01		
25360	MN_TOT	MANGANESE TOTAL	1520	MG/L	0.01		2.500
25401	MNO_EXTR	MNO EXTRACTABLE	457	%			0.5
25601	MN_EXTR	MANGANESE EXTRACTABLE	1529	MG/KG			
26002	FE_TOT	IRON TOTAL	1180	MG/L	.001		20000
26003	FE_TOT	IRON TOTAL	1091	MG/L	.001		1000
26004	FE_TOT	IRON TOTAL	479	MG/L	.05		1000
26005	FE_TOT	IRON TOTAL	1183	MG/L	.001		1000
26006	FE_TOT	IRON TOTAL	1184	MG/L	.01		1000
26007	FE_TOT	IRON TOTAL	1185	MG/L	.01		1000
26008	FE_TOT	IRON TOTAL	1186	MG/L			1000
26009	FE_TOT	IRON TOTAL	1502	MG/L	.002		1000
26011	FE_TOT	IRON TOTAL	1503	UG/L	2		1000
26012	FE_TOT	IRON TOTAL	441	UG/L	0.07		1000
26050	FE_TOT	IRON TOTAL	58	MG/KG	50.0		
26052	FE_EXTR	IRON EXTRACTABLE	1508	MG/KG	0.02		
26053	FE_TOT	IRON TOTAL	486	MG/KG	5.0		
26054	FE_NON-RES	IRON NON-RES	487	MG/KG	0.5		1000
26055	FE_TOT	IRON TOTAL	2315	MG/KG	0.5		300000
26101	FE_DIS	IRON DISSOLVED	1193	MG/L	.01		1000
26102	FE_DIS	IRON DISSOLVED	1180	MG/L	.001		1000
26103	FE_DIS	IRON DISSOLVED	1195	MG/L			1000
26104	FE_DIS	IRON DISSOLVED	1196	MG/L	.05		1000
26105	FE_DIS	IRON DISSOLVED	1183	MG/L	.001		1000
26106	FE_DIS	IRON DISSOLVED	1198	MG/L			1000
26107	FE_DIS	IRON DISSOLVED	481	MG/L			1000
26109	FE_DIS	IRON DISSOLVED	1502	MG/L	.001		1000
26111	FE_DIS	IRON DISSOLVED	1516	UG/L	2		1000
26204	FE_EXTR	IRON EXTRACTABLE	479	MG/L	.05		1000
26205	FE_EXTR	IRON EXTRACTABLE	1183	MG/L	.001		1000
26211	FE_EXTR	IRON EXTRACTABLE	1519	UG/L	2		1000
26301	FE_EXTR	IRON EXTRACTABLE	1193	MG/L	.01		1000
26302	FE_EXTR	IRON EXTRACTABLE	1180	MG/L	.001		1000
26303	FE_EXTR	IRON EXTRACTABLE	1170	MG/L			1000
26304	FE_EXTR	IRON EXTRACTABLE	479	MG/L	.02		1000
26305	FE_EXTR	IRON EXTRACTABLE	1183	MG/L	.001		1000
26306	FE_EXTR	IRON EXTRACTABLE	481	MG/L			1000
26307	FE_EXTR	IRON EXTRACTABLE	1211	MG/L			1000
26309	FE_EXTR	IRON EXTRACTABLE	504	MG/L	.0005		1000
26311	FE_EXTR	IRON EXTRACTABLE	1502	MG/L	.001		1000
26312	FE_EXTR	IRON EXTRACTABLE	2322	MG/L	0.02		32.0
26321	FE_EXTR	IRON EXTRACTABLE	1526	UG/L	1		1000
26330	FE_TOT	IRON TOTAL	1520	MG/L	0.10		2.500

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VMV CODE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
26401	FE2O3	FE2O3	457	%			15
26601	FE	IRON	1529	MG/KG			100
27001	CO_TOT	COBALT TOTAL	479	MG/L	.01		1000
27002	CO_TOT	COBALT TOTAL	1183	MG/L	.001		1000
27003	CO_TOT	COBALT TOTAL	481	MG/L			1000
27004	CO_TOT	COBALT TOTAL	1183	MG/L			1000
27009	CO_TOT	COBALT TOTAL	1502	MG/L	.002		1000
27011	CO_TOT	COBALT TOTAL	1503	UG/L	2		1000
27012	CO_TOT	COBALT TOTAL	441	UG/L	0.05		
27020	CO_TOT_REC	COBALT TOTAL RECOVERABLE	1224	MG/L	.002		
27050	CO_TOT	COBALT TOTAL	58	MG/KG	10.0		
27051	CO_TOT	COBALT TOTAL	1226	MG/KG	2.0		1000
27052	CO_TOT	COBALT TOTAL	1508	MG/KG	50.0		
27053	CO_TOT	COBALT TOTAL	486	MG/KG	1		50000
27054	CO_NON-RES	COBALT NON-RES	487	MG/KG	0.1		5000
27101	CO_DIS	COBALT DISSOLVED	479	MG/L	.01		1000
27102	CO_DIS	COBALT DISSOLVED	1183	MG/L	.001		1000
27107	CO_DIS	COBALT DISSOLVED	1232	MG/L			1000
27109	CO_DIS	COBALT DISSOLVED	1502	MG/L	.001		1000
27111	CO_DIS	COBALT DISSOLVED	1516	UG/L	2		1000
27201	CO_EXTR	COBALT EXTRACTABLE	479	MG/L	.01		5000
27202	CO_EXTR	COBALT EXTRACTABLE	1183	MG/L	.001		5000
27211	CO_EXTR	COBALT EXTRACTABLE	1519	UG/L	2		5000
27301	CO_EXTR	COBALT EXTRACTABLE	479	MG/L	.01		5000
27302	CO_EXTR	COBALT EXTRACTABLE	1183	MG/L	.001		5000
27303	CO_EXTR	COBALT EXTRACTABLE	1240	MG/L			10000
27309	CO_EXTR	COBALT EXTRACTABLE	481	MG/L	.0005		
27311	CO_EXTR	COBALT EXTRACTABLE	1502	MG/L	.001		
27321	CO_EXTR	COBALT EXTRACTABLE	1526	UG/L	1		
27360	CO_TOT	COBALT TOTAL	1520	MG/L	0.008		2.500
27401	CO_EXTR	COBALT EXTRACTABLE	82	MG/KG			100000
27430	CO_EXTR	COBALT EXTRACTABLE	2346	MG/KG	0.02		
27601	CO_EXTR	COBALT EXTRACTABLE	1529	MG/KG			
28001	NI_TOT	NICKEL TOTAL	479	MG/L	.01		100000
28002	NI_TOT	NICKEL TOTAL	1183	MG/L	.001		10000
28003	NI_TOT	NICKEL TOTAL	479	MG/L			
28004	NI_TOT	NICKEL TOTAL	1249	MG/L			
28006	NI_TOT	NICKEL TOTAL	1250	MG/L	.001		10000
28007	NI_TOT	NICKEL TOTAL	1249	MG/L			
28008	NI_TOT	NICKEL TOTAL	1252	MG/L			
28009	NI_TOT	NICKEL TOTAL	1502	MG/L	.002		
28011	NI_TOT	NICKEL TOTAL	1254	UG/L	2		50000
28012	NI_TOT	NICKEL TOTAL	441	UG/L	0.02		
28020	NI_TOT_REC	NICKEL TOTAL RECOVERABLE	1224	MG/L	.002		
28050	NI_TOT	NICKEL TOTAL	58	MG/KG	10		
28051	NI_TOT	NICKEL TOTAL	1226	MG/KG	2		1000
28052	NI_TOT	NICKEL TOTAL	1508	MG/KG	50.0		
28053	NI_TOT	NICKEL TOTAL	486	MG/KG	1		50000
28054	NI_NON-RES	NICKEL NON-RES	487	MG/KG	0.1		5000
28101	NI_DIS	NICKEL DISSOLVED	479	MG/L	.01		100000
28102	NI_DIS	NICKEL DISSOLVED	1183	MG/L	.001		10000
28107	NI_DIS	NICKEL DISSOLVED	481	MG/L			
28109	NI_DIS	NICKEL DISSOLVED	1502	MG/L	.001		
28111	NI_DIS	NICKEL DISSOLVED	1516	UG/L	2		50000
28201	NI_EXTR	NICKEL EXTRACTABLE	479	MG/L	.01		100000
28202	NI_EXTR	NICKEL EXTRACTABLE	1183	MG/L	.001		10000
28211	NI_EXTR	NICKEL EXTRACTABLE	1519	UG/L	2		50000
28301	NI_EXTR	NICKEL EXTRACTABLE	479	MG/L	.01		100000
28302	NI_EXTR	NICKEL EXTRACTABLE	1183	MG/L	.001		10000
28303	NI_EXTR	NICKEL EXTRACTABLE	1170	MG/L			10000
28307	NI_EXTR	NICKEL EXTRACTABLE	1249	MG/L			10000
28309	NI_EXTR	NICKEL EXTRACTABLE	504	MG/L	.0005		200
28311	NI_EXTR	NICKEL EXTRACTABLE	1502	MG/L	.001		
28312	NI_EXTR	NICKEL EXTRACTABLE	2322	MG/L	0.05		50.0
28321	NI_EXTR	NICKEL EXTRACTABLE	1526	UG/L	2		1000
28330	NI_EXTR	NICKEL EXTRACTABLE	2346	MG/KG	0.04		
28350	NI_TOT	NICKEL TOTAL	1520	MG/L	0.01		2.500
28401	NI_EXTR	NICKEL EXTRACTABLE	1277	MG/KG			2900
28402	NI_EXTR	NICKEL EXTRACTABLE	82	MG/KG			1100000
28601	NI_EXTR	NICKEL EXTRACTABLE	1529	MG/KG	0.05		100
29001	CU_TOT	COPPER TOTAL	458	MG/L			
29003	CU_TOT	COPPER TOTAL	481	MG/L			
29005	CU_TOT	COPPER TOTAL	1183	MG/L	.001		10000
29006	CU_TOT	COPPER TOTAL	479	MG/L	.01		10000
29007	CU_TOT	COPPER TOTAL	479	MG/L	.002		1000
29009	CU_TOT	COPPER TOTAL	1502	MG/L	.001		
29010	CU_TOT	COPPER TOTAL	1183	MG/L	.001		10000

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VMV CODE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
29011	CU_TOT	COPPER TOTAL	1503	UG/L	1		50000
29012	CU_TOT	COPPER TOTAL	441	UG/L	0.02		
29020	CU_TOT_REC	COPPER TOTAL RECOVERABLE	1224	MG/L	.001		
29050	CU_TOT	COPPER TOTAL	58	MG/KG	10		
29051	CU_TOT	COPPER TOTAL	1226	MG/KG	2.0		1000
29052	CU_TOT	COPPER TOTAL	1508	MG/KG	30		
29053	CU_TOT	COPPER TOTAL	486	MG/KG	1		50000
29054	CU_NON-RES	COPPER NON-RES	487	MG/KG	0.1		5000
29101	CU_DIS	COPPER DISSOLVED	1295	MG/L			100000
29102	CU_DIS	COPPER DISSOLVED	1296	MG/L			50000
29104	CU_DIS	COPPER DISSOLVED	1295	MG/L	.01		500000
29105	CU_DIS	COPPER DISSOLVED	1183	MG/L	.001		30000
29106	CU_DIS	COPPER DISSOLVED	479	MG/L	.01		30000
29107	CU_DIS	COPPER DISSOLVED	481	MG/L			50000
29108	CU_DIS	COPPER DISSOLVED	1183	MG/L	.001		30000
29109	CU_DIS	COPPER DISSOLVED	1502	MG/L	.001		
29111	CU_DIS	COPPER DISSOLVED	1516	UG/L	1		50000
29205	CU_EXTR	COPPER EXTRACTABLE	1183	MG/L	.001		30000
29206	CU_EXTR	COPPER EXTRACTABLE	479	MG/L	.01		30000
29211	CU_EXTR	COPPER EXTRACTABLE	1519	UG/L	1		50000
29301	CU_EXTR	COPPER EXTRACTABLE	1295	MG/L			10000
29302	CU_EXTR	COPPER EXTRACTABLE	1170	MG/L			30000
29303	CU_EXTR	COPPER EXTRACTABLE	1309	MG/L	.01		100000
29304	CU_EXTR	COPPER EXTRACTABLE	1295	MG/L	.01		100000
29305	CU_EXTR	COPPER EXTRACTABLE	1183	MG/L	.001		30000
29306	CU_EXTR	COPPER EXTRACTABLE	479	MG/L	.01		30000
29307	CU_EXTR	COPPER EXTRACTABLE	479	MG/L	.001		3000
29308	CU_EXTR	COPPER EXTRACTABLE	1314	MG/L			10000
29309	CU_EXTR	COPPER EXTRACTABLE	504	MG/L	.0005		1000
29311	CU_EXTR	COPPER EXTRACTABLE	1502	MG/L	.001		
29312	CU_EXTR	COPPER EXTRACTABLE	2322	MG/L	0.01		32.0
29321	CU_EXTR	COPPER EXTRACTABLE	1526	UG/L	1		5000
29401	CU_EXTR	COPPER EXTRACTABLE	1277	MG/KG			2000
29402	CU_EXTR	COPPER EXTRACTABLE	82	MG/KG			1400
29430	CU_EXTR	COPPER EXTRACTABLE	2346	MG/KG	0.02		
29501	CU_TOT	COPPER TOTAL	1520	MG/L	0.01		2.500
29601	CU_EXTR	COPPER EXTRACTABLE	1529	MG/KG	0.2		100
30001	ZN_TOT	ZINC TOTAL	458	MG/L			
30003	ZN_TOT	ZINC TOTAL	481	MG/L			
30004	ZN_TOT	ZINC TOTAL	479	MG/L	.01		50000
30005	ZN_TOT	ZINC TOTAL	1183	MG/L	.001		10000
30006	ZN_TOT	ZINC TOTAL	479	MG/L	.001		2500
30007	ZN_TOT	ZINC TOTAL	1183	MG/L	.001		10000
30008	ZN_TOT	ZINC TOTAL	479	MG/L			
30009	ZN_TOT	ZINC TOTAL	1502	MG/L	.002		
30011	ZN_TOT	ZINC TOTAL	1503	UG/L	2		50000
30012	ZN_TOT	ZINC TOTAL	441	UG/L	0.06		
30020	ZN_TOT_REC	ZINC TOTAL RECOVERABLE	1224	MG/L	.001		
30050	ZN_TOT	ZINC TOTAL	58	MG/KG	10		
30051	ZN_TOT	ZINC TOTAL	1226	MG/KG	20		1000
30052	ZN_TOT	ZINC TOTAL	1508	MG/KG	30		
30053	ZN_TOT	ZINC TOTAL	486	MG/KG	5		10000
30054	ZN_NON-RES	ZINC NON-RES	487	MG/KG	0.1		2000
30101	ZN_DIS	ZINC DISSOLVED	1337	MG/L	.01		25000
30102	ZN_DIS	ZINC DISSOLVED	1296	MG/L			50000
30103	ZN_DIS	ZINC DISSOLVED	1339	MG/L	.01		25000
30104	ZN_DIS	ZINC DISSOLVED	479	MG/L	.01		5000000
30105	ZN_DIS	ZINC DISSOLVED	1183	MG/L	.001		300000
30107	ZN_DIS	ZINC DISSOLVED	481	MG/L			20000
30108	ZN_DIS	ZINC DISSOLVED	1183	MG/L	.001		10000
30109	ZN_DIS	ZINC DISSOLVED	1502	MG/L	.001		
30111	ZN_DIS	ZINC DISSOLVED	1516	UG/L	2		50000
30204	ZN_EXTR	ZINC EXTRACTABLE	479	MG/L	.01		25000
30205	ZN_EXTR	ZINC EXTRACTABLE	1183	MG/L	.001		10000
30211	ZN_EXTR	ZINC EXTRACTABLE	1519	UG/L	2		50000
30301	ZN_EXTR	ZINC EXTRACTABLE	1337	MG/L	.01		10000
30303	ZN_EXTR	ZINC EXTRACTABLE	1350	MG/L	.01		100000
30304	ZN_EXTR	ZINC EXTRACTABLE	479	MG/L	.01		1000000
30305	ZN_EXTR	ZINC EXTRACTABLE	1183	MG/L	.001		100000
30306	ZN_EXTR	ZINC EXTRACTABLE	481	MG/L			100000
30307	ZN_EXTR	ZINC EXTRACTABLE	1354	MG/L	.001		100000
30309	ZN_EXTR	ZINC EXTRACTABLE	504	MG/L	.0005		1000
30311	ZN_EXTR	ZINC EXTRACTABLE	1502	MG/L	.001		
30312	ZN_EXTR	ZINC EXTRACTABLE	2322	MG/L	0.01		50.0
30321	ZN_EXTR	ZINC EXTRACTABLE	1526	UG/L	1		1000
30330	ZN_EXTR	ZINC EXTRACTABLE	2346	MG/KG	0.01		
30401	ZN_EXTR	ZINC EXTRACTABLE	1277	MG/KG			60000

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VMV CODE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
30402	ZN_EXTR	ZINC EXTRACTABLE	82	MG/KG			5000
30501	ZN_TOT	ZINC TOTAL	1520	MG/L	0.01		2.500
30601	ZN_EXTR	ZINC EXTRACTABLE	1529	MG/KG	0.2		100
33001	AS_TOT	ARSENIC TOTAL	1361	MG/L			10000
33003	AS_TOT	ARSENIC TOTAL	1362	MG/L	.005		5000
33004	AS_TOT	ARSENIC TOTAL	1363	UG/L	1.0		1000
33005	AS_TOT	ARSENIC TOTAL	1399	MG/L			10000
33006	AS_TOT	ARSENIC TOTAL	1362	MG/L	.005		10000
33007	AS_TOT	ARSENIC TOTAL	1372	MG/L	.001		10000
33008	AS_TOT	ARSENIC TOTAL	1367	MG/L	.00002		
33009	AS_TOT	ARSENIC TOTAL	1368	MG/L	.001		
33010	AS_TOT	ARSENIC TOTAL	1363	MG/L	.0001		
33011	AS_TOT	ARSENIC TOTAL	1370	MG/L	.0002		
33012	AS_TOT	ARSENIC TOTAL	2350	MG/L	0.001		0.050
33021	AS_TOT	ARSENIC TOTAL	1371	UG/L			100
33050	AS_TOT	ARSENIC TOTAL	1372	MG/KG	0.025		100
33052	AS_TOT	ARSENIC TOTAL	1373	MG/KG	0.05		
33054	AS_NON-RES	ARSENIC NON-RES	1374	MG/KG	0.01		5000
33101	AS_DIS	ARSENIC DISSOLVED	1295	MG/L			10000
33103	AS_DIS	ARSENIC DISSOLVED	1362	MG/L	.005		20000
33104	AS_DIS	ARSENIC DISSOLVED	1399	MG/L	.0001		20000
33105	AS_DIS	ARSENIC DISSOLVED	1378	MG/L	.02		10000
33106	AS_DIS	ARSENIC DISSOLVED	1362	MG/L			99000
33108	AS_DIS	ARSENIC DISSOLVED	1367	MG/L			
33301	AS_EXTR	ARSENIC EXTRACTABLE	1381	MG/L	.005		10000
33303	AS_EXTR	ARSENIC EXTRACTABLE	1362	MG/L	.005		5000
33304	AS_EXTR	ARSENIC EXTRACTABLE	1399	MG/L	.0001		20000
33305	AS_EXTR	ARSENIC EXTRACTABLE	2351	MG/L	0.001		0.050
33401	AS_EXTR	ARSENIC EXTRACTABLE	82	MG/KG			120
33601	AS_EXTR	ARSENIC EXTRACTABLE	1385	MG/KG	0.05		100
33602	AS_EXTR	ARSENIC EXTRACTABLE	1373	MG/KG	0.05		
34001	SE_TOT	SELENIUM TOTAL	1387	MG/L	.002		10000
34002	SE_TOT	SELENIUM TOTAL	438	MG/L			
34004	SE_TOT	SELENIUM TOTAL	1389	MG/L			10000
34005	SE_TOT	SELENIUM TOTAL	1399	MG/L			10000
34007	SE_TOT	SELENIUM TOTAL	1399	MG/L	.001		10000
34008	SE_TOT	SELENIUM TOTAL	1367	MG/L	.00003		
34009	SE_TOT	SELENIUM TOTAL	1368	MG/L	.001		
34010	SE_TOT	SELENIUM TOTAL	1399	MG/L	.1		
34011	SE_TOT	SELENIUM TOTAL	1370	MG/L	.0002		
34050	SE_TOT	SELENIUM TOTAL	1372	MG/KG	0.025		100
34052	SE_TOT	SELENIUM TOTAL	1373	MG/KG	0.05		
34054	SE_NON-RES	SELENIUM NON-RES	1398	MG/KG	0.01		5000
34102	SE_DIS	SELENIUM DISSOLVED	1399	MG/L	.0001		20000
34108	SE_DIS	SELENIUM DISSOLVED	1367	MG/L			
34301	SE_EXTR	SELENIUM EXTRACTABLE	479	MG/L	.001		10000
34302	SE_EXTR	SELENIUM EXTRACTABLE	1399	MG/L	.0001		20000
34401	SE_EXTR	SELENIUM EXTRACTABLE	82	MG/KG			10
34601	SE_EXTR	SELENIUM EXTRACTABLE	1385	MG/KG	0.05		100
34602	SE_EXTR	SELENIUM EXTRACTABLE	1373	MG/KG	0.05		
34651	SE_EXTR	SELENIUM EXTRACTABLE	1406	MG/KG	0.01		100
35201	BR_DIS	BROMIDE DISSOLVED	1407	MG/L			2000000
36000	COLIFORMS_TOT	COLIFORMS TOTAL	1408	NO/ML			999999
36001	COLIFORMS_TOT	COLIFORMS TOTAL	1409	NO/DL			999999
36002	COLIFORMS_TOT	COLIFORMS TOTAL	1410	NO/DL			999999
36003	BKGR_COLONIES_TOT	BACKGROUND COLONIES TOTAL	1411	NO/DL	1		999999
36004	COLIFORMS_TOT	COLIFORMS TOTAL	1412	NO/ML			999999
36005	COLIFORMS_TOT	COLIFORMS TOTAL	1413	NO/DL			
36010	COLIFORMS_FECAL	COLIFORMS FECAL	1414	NO/ML			
36011	COLIFORMS_FECAL	COLIFORMS FECAL	1409	NO/DL			999999
36012	COLIFORMS_FECAL	COLIFORMS FECAL	1410	NO/DL			999999
36013	COLIFORMS_FECAL	COLIFORMS FECAL	1417	NO/DL			999999
36014	COLIFORMS_FECAL	COLIFORMS FECAL	1418	NO/DL			
36015	COLIFORMS_FECAL	COLIFORMS FECAL	2336	NO	0		200000
36101	FECAL_STREP	FECAL STREPTOCOCCI	1409	NO/DL			999999
36102	FECAL_STREP	FECAL STREPTOCOCCI	1410	NO/DL			999999
36103	FECAL_STREP	FECAL STREPTOCOCCI	1421	NO/DL			999999
36105	FECAL_STREP	FECAL STREPTOCOCCI	1421	NO/DL			
36110	FECAL_STREP	FECAL STREPTOCOCCI	1414	NO/ML			
36200	PSEUDOMONAS_AERUGINO	PSEUDOMONAS AERUGINOSA	1424	NO/DL			
36201	PSEUDOMONAS_AERUGINO	PSEUDOMONAS AERUGINOSA	1425	NO/DL			
36211	PSEUDOMONAS_AERUGINO	PSEUDOMONAS AERUGINOSA	1425	NO/ML			
36301	PHYTOPLANKTON_COUNT	PHYTOPLANKTON COUNT	1427	NO/L			
36302	PHYTOPLANKTON_VOL_BI	PHYTOPLANKTON VOLUME BIOMASS	1428	MG/M3			
36303	PHYTOPLANKTON_SP_CNT	PHYTOPLANKTON SPECIES COUNT	1429	NO			
36304	PHYTOPLANKTON_COUNT	PHYTOPLANKTON COUNT	1430	NO/ML			
36900	BACT_DENS_COUNT_20DC	STD. PLATE COUNT 20DEG.C BACT. DENS.	1431	NO/ML	1		999999

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VMV CODE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
36901	BACT_DENS_COUNT_20DC	STD. PLATE COUNT 20DEG.C BACT. DENS.	1432	1000/ML			
36905	BACT_DENS_COUNT_35DC	STD. PLATE COUNT 35DEG.C BACT. DENS.	1431	NO/ML	1		999999
36906	BACT_DENS_COUNT_35DC	STD. PLATE COUNT 35DEG.C BACT. DENS.	1434	1000/ML			
36910	BACT_DENS_COUNT	STD. PLATE COUNT BACT. DENS.	1431	NO/ML			
36915	BACT_DENS_COUNT	STD. PLATE COUNT BACT. DENS.	1431	NO/ML			
36920	AEROBIC_HETEROTROPHS	AEROBIC HETEROTROPHS	1437	NO/ML			999999
38001	SR_TOT	STRONTIUM TOTAL	479	MG/L	.02		10000
38009	SR_TOT	STRONTIUM TOTAL	1502	MG/L	.002		
38011	SR_TOT	STRONTIUM TOTAL	1503	UG/L	2		50000
38012	SR_TOT	STRONTIUM TOTAL	441	UG/L	0.003		
38050	SR_TOT	STRONTIUM TOTAL	58	MG/KG	20		
38101	SR_DIS	STRONTIUM DISSOLVED	479	MG/L	.02		10000
38109	SR_DIS	STRONTIUM DISSOLVED	1502	MG/L	.001		
38111	SR_DIS	STRONTIUM DISSOLVED	1516	UG/L	2		50000
38201	SR_EXTR	STRONTIUM EXTRACTABLE	479	MG/L	.02		10000
38211	SR_EXTR	STRONTIUM EXTRACTABLE	1519	UG/L	2		50000
38301	SR_EXTR	STRONTIUM EXTRACTABLE	479	MG/L	.02		10000
38311	SR_EXTR	STRONTIUM EXTRACTABLE	1502	MG/L	.001		
38321	SR_EXTR	STRONTIUM EXTRACTABLE	1526	UG/L	0.5		5000
38330	SR_EXTR	STRONTIUM EXTRACTABLE	2346	MG/KG	0.01		
38401	SR_EXTR	STRONTIUM EXTRACTABLE	82	MG/KG			1000
38501	SR_RAD_TOT	STRONTIUM RADIATION TOTAL SR-90	1452	BQ/L			10
38502	SR_RAD	STRONTIUM RADIATION SR-90	1453	BQ/L			
38601	SR_EXTR	STRONTIUM EXTRACTABLE	1529	MG/KG			
42000	MO_TOT	MOLYBDENUM TOTAL	1113	MG/L			
42001	MO_TOT	MOLYBDENUM TOTAL	1113	MG/L	.05		10000
42002	MO_TOT	MOLYBDENUM TOTAL	1457	MG/L	.0002		10000
42004	MO_TOT	MOLYBDENUM TOTAL	1113	MG/L	.001		10000
42005	MO_TOT	MOLYBDENUM TOTAL	2364	MG/L			
42006	MO_TOT	MOLYBDENUM TOTAL	481	MG/L			
42009	MO_TOT	MOLYBDENUM TOTAL	1502	MG/L	.004		
42011	MO_TOT	MOLYBDENUM TOTAL	1503	UG/L	4		50000
42012	MO_TOT	MOLYBDENUM TOTAL	441	UG/L	0.04		
42050	MO_TOT	MOLYBDENUM TOTAL	58	MG/KG	50		
42053	MO_TOT	MOLYBDENUM TOTAL	486	MG/KG	5		400000
42055	MO_EXTR	MOLYBDENUM EXTRACTABLE	2346	MG/KG	0.02		
42101	MO_DIS	MOLYBDENUM DISSOLVED	1113	MG/L	.05		10000
42102	MO_DIS	MOLYBDENUM DISSOLVED	1457	MG/L	.0002		5000
42109	MO_DIS	MOLYBDENUM DISSOLVED	1502	MG/L	.001		
42111	MO_DIS	MOLYBDENUM DISSOLVED	1516	UG/L	4		50000
42121	MO_EXTR	MOLYBDENUM EXTRACTABLE	1526	UG/L	1		1000
42201	MO_EXTR	MOLYBDENUM EXTRACTABLE	1113	MG/L	.05		10000
42202	MO_EXTR	MOLYBDENUM EXTRACTABLE	1457	MG/L	.0002		5000
42211	MO_EXTR	MOLYBDENUM EXTRACTABLE	1519	UG/L	4		50000
42301	MO_EXTR	MOLYBDENUM EXTRACTABLE	1113	MG/L	.05		10000
42302	MO_EXTR	MOLYBDENUM EXTRACTABLE	1457	MG/L	.0002		5000
42303	MO_EXTR	MOLYBDENUM EXTRACTABLE	1170	MG/L			10000
42304	MO_EXTR	MOLYBDENUM EXTRACTABLE	1477	MG/L	.001		10000
42311	MO_EXTR	MOLYBDENUM EXTRACTABLE	1502	MG/L	.001		
42330	MO_TOT	MOLYBDENUM TOTAL	1520	MG/L	0.01		2.500
42401	MO_EXTR	MOLYBDENUM EXTRACTABLE	82	MG/KG			10000
42601	MO_EXTR	MOLYBDENUM EXTRACTABLE	1529	MG/KG			
47001	AG_TOT	SILVER TOTAL	1481	MG/L	.01		1000
47002	AG_TOT	SILVER TOTAL	1482	MG/L	.005		1000
47003	AG_TOT	SILVER TOTAL	1483	MG/L	.0001		1000
47005	AG_TOT	SILVER TOTAL	481	MG/L	.0001		
47101	AG_DIS	SILVER DISSOLVED	1481	MG/L	.01		1000
47102	AG_DIS	SILVER DISSOLVED	1482	MG/L	.005		1000
47103	AG_DIS	SILVER DISSOLVED	1483	MG/L	.0001		1000
47201	AG_EXTR	SILVER EXTRACTABLE	1481	MG/L	.01		1000
47202	AG_EXTR	SILVER EXTRACTABLE	1482	MG/L	.005		1000
47203	AG_EXTR	SILVER EXTRACTABLE	1483	MG/L	.0001		1000
47301	AG_EXTR	SILVER EXTRACTABLE	1481	MG/L	.01		100
47302	AG_EXTR	SILVER EXTRACTABLE	1482	MG/L	.005		1000
47303	AG_EXTR	SILVER EXTRACTABLE	1483	MG/L	.0001		1000
47304	AG_EXTR	SILVER EXTRACTABLE	1494	MG/L	.001		
47401	AG_EXTR	SILVER EXTRACTABLE	82	MG/KG			20000
48000	CD_TOT	CADMIUM TOTAL	479	MG/L			
48001	CD_TOT	CADMIUM TOTAL	479	MG/L	.01		1000
48002	CD_TOT	CADMIUM TOTAL	1183	MG/L	.001		1000
48003	CD_TOT	CADMIUM TOTAL	481	MG/L			
48006	CD_TOT	CADMIUM TOTAL	1500	MG/L	.001		100
48007	CD_TOT	CADMIUM TOTAL	1183	MG/L	.001		1000
48009	CD_TOT	CADMIUM TOTAL	1502	MG/L	.001		
48011	CD_TOT	CADMIUM TOTAL	1503	UG/L	1		50000
48012	CD_TOT	CADMIUM TOTAL	441	UG/L	0.05		
48020	CD_TOT_REC	CADMIUM TOTAL RECOVERABLE	1224	MG/L	.001		

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VMV CODE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
48050	CD_TOT	CADMIUM TOTAL	58	MG/KG	10		
48051	CD_TOT	CADMIUM TOTAL	1226	MG/KG	2.0		1000
48052	CD_TOT	CADMIUM TOTAL	1508	MG/KG	30		
48053	CD_TOT	CADMIUM TOTAL	486	MG/KG	1		20000
48054	CD_NON-RES	CADMIUM NON-RES	487	MG/KG	0.1		2000
48101	CD_DIS	CADMIUM DISSOLVED	1161	MG/L	.01		1000
48102	CD_DIS	CADMIUM DISSOLVED	1183	MG/L	.001		1000
48103	CD_DIS	CADMIUM DISSOLVED	481	MG/L			20000
48104	CD_DIS	CADMIUM DISSOLVED	1183	MG/L	.001		1000
48109	CD_DIS	CADMIUM DISSOLVED	1502	MG/L	.001		
48111	CD_DIS	CADMIUM DISSOLVED	1516	UG/L	1		50000
48201	CD_EXTR	CADMIUM EXTRACTABLE	479	MG/L	.01		1000
48202	CD_EXTR	CADMIUM EXTRACTABLE	1518	MG/L	.001		1000
48211	CD_EXTR	CADMIUM EXTRACTABLE	1519	UG/L	1		50000
48301	CD_EXTR	CADMIUM EXTRACTABLE	479	MG/L	.01		100
48302	CD_EXTR	CADMIUM EXTRACTABLE	1183	MG/L	.001		1000
48303	CD_EXTR	CADMIUM EXTRACTABLE	481	MG/L			5000
48305	CD_EXTR	CADMIUM EXTRACTABLE	479	MG/L	.001		100
48309	CD_EXTR	CADMIUM EXTRACTABLE	504	MG/L	.0005		100
48311	CD_EXTR	CADMIUM EXTRACTABLE	1502	MG/L	.001		
48321	CD_EXTR	CADMIUM EXTRACTABLE	1526	UG/L	1		2000
48401	CD_EXTR	CADMIUM EXTRACTABLE	1277	MG/KG			5000
48402	CD_EXTR	CADMIUM EXTRACTABLE	82	MG/KG			900
48410	CD_EXTR	CADMIUM EXTRACTABLE	2346	MG/KG	0.02		
48501	CD_TOT	CADMIUM TOTAL	1520	MG/L	0.008		2.500
48601	CD_EXTR	CADMIUM EXTRACTABLE	1529	MG/KG	0.02		100
48602	CD_EXTR	CADMIUM EXTRACTABLE	1530	MG/KG	0.05		
50005	SN_TOT	TIN TOTAL	1170	MG/L			
50006	SN_TOT	TIN TOTAL	1532	MG/L			
50009	SN_TOT	TIN TOTAL	1502	MG/L	.008		
50011	SN_TOT	TIN TOTAL	1503	UG/L	8		50000
50101	SN_DIS	TIN DISSOLVED	1161	MG/L	.001		10000
50102	SN_DIS	TIN DISSOLVED	1183	MG/L			10000
50111	SN_DIS	TIN DISSOLVED	1516	UG/L	8		50000
50211	SN_EXTR	TIN EXTRACTABLE	1519	UG/L	8		50000
50301	SN_EXTR	TIN EXTRACTABLE	479	MG/L	.001		10000
50302	SN_EXTR	TIN EXTRACTABLE	1183	MG/L			10000
50401	SN_EXTR	TIN EXTRACTABLE	82	MG/KG			100000
51001	SB_TOT	ANTIMONY TOTAL	479	MG/L	.2		10000
51002	SB_TOT	ANTIMONY TOTAL	1183	MG/L	.0002		1000
51003	SB_TOT	ANTIMONY TOTAL	1544	MG/L	.0005		
51004	SB_TOT	ANTIMONY TOTAL	1399	MG/L	.001		
51008	SB_DIS	ANTIMONY DISSOLVED	1367	MG/L			
51101	SB_DIS	ANTIMONY DISSOLVED	1161	MG/L	.2		10000
51102	SB_DIS	ANTIMONY DISSOLVED	1183	MG/L	.0002		1000
51104	SB_DIS	ANTIMONY DISSOLVED	1399	MG/L	.001		
51201	SB_EXTR	ANTIMONY EXTRACTABLE	1550	MG/L	.2		10000
51202	SB_EXTR	ANTIMONY EXTRACTABLE	1183	MG/L	.0002		1000
51301	SB_EXTR	ANTIMONY EXTRACTABLE	479	MG/L	.2		10000
51302	SB_EXTR	ANTIMONY EXTRACTABLE	1183	MG/L	.0002		1000
51451	SB_TOT	ANTIMONY TOTAL	1554	MG/L	.01		
51501	SB_RADIATION	ANTIMONY RADIATION SB-125	1572	BQ/L			
53501	I_RADIATION	IODINE RADIATION I-131	1556	BQ/L			
54001	ALGAL_GROWTH_POT_TOT	TOTAL ALGAL GROWTH POTENTIAL	1557	CELLS/ML			
54010	ALGAL_GROWTH_POT_TOT	TOTAL ALGAL GROWTH POTENTIAL	1558	MG/L DR WT			
54101	ALGAL_GROWTH_POT_FIL	FILTERED ALGAL GROWTH POTENTIAL	1559	CELLS/ML			
54110	ALGAL_GROWTH_POT_FIL	FILTERED ALGAL GROWTH POTENTIAL	1558	MG/L DR WT			
54201	ALGAL_COUNT_TOT	ALGAL COUNT TOTAL	1561	GIGA/M2			
54202	ALGAL_COUNT_CYANOPHY	ALGAL COUNT CYANOPHYTA	1561	GIGA/M2			
54203	ALGAL_COUNT_CHLOROPH	ALGAL COUNT CHLOROPHYTA	1561	GIGA/M2			
54204	ALGAL_COUNT_BACILLAR	ALGAL COUNT BACILLARIOPHYTA	1561	GIGA/M2			
54250	BIOMASS_CLADOPHORA	BIOMASS CLADOPHORA	1565	ML/.25M2			
54501	C_FIXAT_PHYTOPLANK	CARBON FIXATION PHYTOPLANKTON	1566	MG/M3/HR			
54502	C_FIXAT_EPILITHON	CARBON FIXATION EPILITHON	1566	MG/M3/HR	0.01		
54601	P_BIOAVAIL_DIS	PHOSPHOROUS DISSOLVED BIOAVAIL.	1559	MG/L			
54611	P_BIOAVAIL_PAR	PHOSPHOROUS PARTICULATE BIOAVAIL.	1569	MG/L			
54621	P_BIOAVAIL_TOT	PHOSPHOROUS TOTAL BIOAVAIL.	1570	MG/L			
55501	CS_RADIATION	CESIUM RADIATION CS-137	1571	BQ/L			
55502	CS_RADIATION	CESIUM RADIATION CS-137	1572	BQ/L			
55505	CS_RADIATION	CESIUM RADIATION CS-137	1573	BQ/L			
55601	CS_RADIATION	CESIUM RADIATION CS-137	1574	BQ/KG			
56001	BA_TOT	BARIUM TOTAL	1575	MG/L	.1		10000
56002	BA_TOT	BARIUM TOTAL	1575	MG/L	.02		10000
56003	BA_TOT	BARIUM TOTAL	1575	MG/L			
56009	BA_TOT	BARIUM TOTAL	1502	MG/L	.001		
56011	BA_TOT	BARIUM TOTAL	1503	UG/L			
56012	BA_TOT	BARIUM TOTAL	441	UG/L	0.003		

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VMV CODE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
56020	BA_TOT_REC	BARIUM TOTAL RECOVERABLE	1581	MG/L	.1		
56050	BA_TOT	BARIUM TOTAL	58	MG/KG	100		125000
56052	BA_EXTR	BARIUM EXTRACTABLE	2346	MG/KG	0.01		
56101	BA_DIS	BARIUM DISSOLVED	1583	MG/L	.1		10000
56102	BA_DIS	BARIUM DISSOLVED	1575	MG/L	.02		10000
56109	BA_DIS	BARIUM DISSOLVED	1502	MG/L	.001		
56111	BA_DIS	BARIUM DISSOLVED	1516	UG/L	1		50000
56201	BA_EXTR	BARIUM EXTRACTABLE	1575	MG/L	.1		10000
56202	BA_EXTR	BARIUM EXTRACTABLE	1575	MG/L	.02		10000
56301	BA_EXTR	BARIUM EXTRACTABLE	1575	MG/L	.1		1000
56302	BA_EXTR	BARIUM EXTRACTABLE	1590	MG/L	.02		10000
56311	BA_EXTR	BARIUM EXTRACTABLE	1502	MG/L	.001		
56321	BA_EXTR	BARIUM EXTRACTABLE	1526	UG/L	0.5		50000
56330	BA_TOT	BARIUM TOTAL	1520	MG/L	0.01		2.500
74301	W_EXTR	TUNGSTEN EXTRACTABLE	479	MG/L	.01		10000
80011	HG_TOT	MERCURY TOTAL	1594	UG/L	0.05		100
80013	HG_TOT	MERCURY TOTAL	1595	UG/L			100
80014	HG_TOT	MERCURY TOTAL	1595	UG/L	1.0		10
80015	HG_TOT	MERCURY TOTAL	1594	MG/L	.0001		10000
80016	HG_TOT	MERCURY TOTAL	1611	UG/L	0.02		100
80050	HG_TOT	MERCURY TOTAL	1599	MG/KG	0.01		1000
80051	HG_TOT	MERCURY TOTAL	1600	MG/KG	0.4		
80052	HG_TOT	MERCURY TOTAL	1611	MG/KG	0.020		50
80101	HG_DIS	MERCURY DISSOLVED	1594	MG/L	.00005		100
80111	HG_DIS	MERCURY DISSOLVED	1594	UG/L			100
80201	HG_EXTR	MERCURY EXTRACTABLE	1594	MG/L	.00005		100
80211	HG_EXTR	MERCURY EXTRACTABLE	1594	UG/L			100
80301	HG_EXTR	MERCURY EXTRACTABLE	1594	MG/L	.00005		100
80311	HG_EXTR	MERCURY EXTRACTABLE	1594	MG/L			100
80312	HG_EXTR	MERCURY EXTRACTABLE	1608	UG/L			100
80313	HG_EXTR	MERCURY EXTRACTABLE	1594	UG/L			100
80314	HG_EXTR	MERCURY EXTRACTABLE	1594	UG/L			100
80315	HG_EXTR	MERCURY EXTRACTABLE	1611	UG/L	0.02		10
80401	HG_EXTR	MERCURY EXTRACTABLE	1612	UG/KG			100000
80601	HG_EXTR	MERCURY EXTRACTABLE	1613	MG/KG	0.02		100
80602	HG_EXTR	MERCURY EXTRACTABLE	1614	MG/KG			
80603	HG_EXTR	MERCURY EXTRACTABLE	1615	MG/KG	0.1		100
81001	TL_TOT	THALLIUM TOTAL	479	MG/L	.1		10000
81002	TL_TOT	THALLIUM TOTAL	1617	MG/L			
81003	TL_TOT	THALLIUM TOTAL	479	MG/L			
81004	TL_TOT	THALLIUM TOTAL	481	MG/L			
81005	TL_TOT	THALLIUM TOTAL	1620	MG/L	.005		
81101	TL_DIS	THALLIUM DISSOLVED	479	MG/L	.1		10000
81301	TL_EXTR	THALLIUM EXTRACTABLE	479	MG/L	.1		10000
81302	TL_EXTR	THALLIUM EXTRACTABLE	479	MG/L			10000
82001	PB_TOT	LEAD TOTAL	479	MG/L	.05		20000
82002	PB_TOT	LEAD TOTAL	1183	MG/L	.001		10000
82003	PB_TOT	LEAD TOTAL	479	MG/L	.002		2000
82004	PB_TOT	LEAD TOTAL	481	MG/L	0.005		0.050
82005	PB_TOT	LEAD TOTAL	1628	MG/L			
82007	PB_TOT	LEAD TOTAL	1629	MG/L	.001		10000
82008	PB_TOT	LEAD TOTAL	458	MG/L			
82009	PB_TOT	LEAD TOTAL	1502	MG/L	.01		
82011	PB_TOT	LEAD TOTAL	1516	UG/L	10		50000
82012	PB_TOT	LEAD TOTAL	441	UG/L			
82020	PB_TOT_REC	LEAD TOTAL RECOVERABLE	1224	MG/L	.004		
82050	PB_TOT	LEAD TOTAL	58	MG/KG	50		
82051	PB_TOT	LEAD TOTAL	1226	MG/KG	2.0		1000
82052	PB_TOT	LEAD TOTAL	1508	MG/KG	50		
82053	PB_TOT	LEAD TOTAL	486	MG/KG	5		200000
82054	PB_NON-RES	LEAD NON-RES	487	MG/KG	0.5		20000
82101	PB_DIS	LEAD DISSOLVED	479	MG/L	.05		20000
82102	PB_DIS	LEAD DISSOLVED	1641	MG/L			20000
82103	PB_DIS	LEAD DISSOLVED	1183	MG/L	.001		30000
82104	PB_DIS	LEAD DISSOLVED	481	MG/L			20000
82105	PB_DIS	LEAD DISSOLVED	1183	MG/L	.001		10000
82109	PB_DIS	LEAD DISSOLVED	1502	MG/L	.001		
82111	PB_DIS	LEAD DISSOLVED	1502	UG/L	10		50000
82201	PB_EXTR	LEAD EXTRACTABLE	479	MG/L	.05		20000
82202	PB_EXTR	LEAD EXTRACTABLE	1183	MG/L	.001		10000
82211	PB_EXTR	LEAD EXTRACTABLE	1519	UG/L	10		50000
82301	PB_EXTR	LEAD EXTRACTABLE	479	MG/L	.05		2000
82302	PB_EXTR	LEAD EXTRACTABLE	1183	MG/L	.001		20000
82303	PB_EXTR	LEAD EXTRACTABLE	1641	MG/L			20000
82304	PB_EXTR	LEAD EXTRACTABLE	1170	MG/L			10000
82305	PB_EXTR	LEAD EXTRACTABLE	481	MG/L			5000
82306	PB_EXTR	LEAD EXTRACTABLE	479	MG/L	.01		20000

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VMV CODE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
82307	PB_EXTR	LEAD EXTRACTABLE	1656	UG/L	0.1		30
82309	PB_EXTR	LEAD EXTRACTABLE	504	MG/L	.0005		1000
82310	PB_EXTR	LEAD EXTRACTABLE	2307	MG/L	0.005		0.050
82311	PB_EXTR	LEAD EXTRACTABLE	1502	MG/L	.001		
82321	PB_EXTR	LEAD EXTRACTABLE	1526	UG/L	5		1000
82322	PB_EXTR	LEAD EXTRACTABLE	2322	MG/L	0.05		36.0
82323	PB_EXTR	LEAD EXTRACTABLE	1660	UG/L	0.1		30
82324	PB_EXTR	LEAD EXTRACTABLE	1661	UG/L	0.1		30
82325	PB_EXTR	LEAD EXTRACTABLE	1662	UG/L	0.1		30
82330	PB_EXTR	LEAD EXTRACTABLE	2346	MG/KG	0.10		
82337	PB_EXTR	LEAD EXTRACTABLE	1663	UG/L	0.1		30
82338	PB_EXTR	LEAD EXTRACTABLE	1664	UG/L	0.1		30
82339	PB_EXTR	LEAD EXTRACTABLE	1665	UG/L	0.1		30
82353	PB_EXTR	LEAD EXTRACTABLE	1666	UG/L	0.1		30
82354	PB_EXTR	LEAD EXTRACTABLE	1667	UG/L	0.1		30
82355	PB_EXTR	LEAD EXTRACTABLE	1668	UG/L	0.1		
82360	PB_TOT	LEAD TOTAL	1520	MG/L	0.05		2.500
82401	PB_EXTR	LEAD EXTRACTABLE	1277	MG/KG			5000
82402	PB_TOT	LEAD TOTAL	82	MG/KG			1000
82407	PB_+4	LEAD ALKYL	1656	UG/KG	15.00		5000
82423	PB(CH3)2	DIMETHYL LEAD	1660	UG/KG	15000		5000
82424	PB(CH3)3	TRIMETHYL LEAD	1661	UG/KG	15000		5000
82425	PB(CH3)4	TETRAMETHYL LEAD	1662	UG/KG	15000		5000
82437	PB(CH2CH3)2	DIETHYL LEAD	1663	UG/KG	15000		5000
82438	PB(CH2CH3)3	TRIETHYL LEAD	1664	UG/KG	15000		5000
82439	PB(CH2CH3)4	TETRAETHYL LEAD	1665	UG/KG	15000		5000
82453	PB(CH3)3CH2CH3	TRIMETHYL ETHYL LEAD	1666	UG/KG	15000		5000
82454	PB(CH3)2(CH2CH3)2	DIMETHYL DIETHYL LEAD	1667	UG/KG	15000		5000
82455	PBCH3(CH2CH3)3	METHYL TRIETHYL LEAD	1668	UG/KG	15000		5000
82501	PB_RAD	LEAD RADIATION PB-210	1681	BQ/L			10
82502	PB_RAD_TOT	LEAD RADIATION TOTAL PB-210	1682	BQ/L	0.0185		
82510	PB_RAD	LEAD RADIATION PB-210	2365	BQ/L			99
82591	PB_RAD	LEAD RADIATION PB-210	1683	BQ/L			100
82601	PB_EXTR	LEAD EXTRACTABLE	1684	MG/KG	0.1		100
82602	PB_EXTR	LEAD EXTRACTABLE	1530	MG/KG	0.25		
82607	PB_+4	LEAD ALKYL	1656	UG/KG	15		50
82612	PB_RAD	LEAD RADIATION PB-210	1682	BQ/G	0.0185		
82623	PB(CH3)2	DIMETHYL LEAD	1660	UG/KG	15		50
82624	PB(CH3)3	TRIMETHYL LEAD	1661	UG/KG	15		50
82625	PB(CH3)4	TETRAMETHYL LEAD	1662	UG/KG	15		50
82637	PB(CH2CH3)2	DIETHYL LEAD	1663	UG/KG	15		30
82638	PB(CH2CH3)3	TRIETHYL LEAD	1664	UG/KG	15		50
82639	PB(CH2CH3)4	TETRAETHYL LEAD	1665	UG/KG	15		50
82653	PB(CH3)3CH2CH3	TRIMETHYL ETHYL LEAD	1666	UG/KG	15		50
82654	PB(CH3)2(CH2CH3)2	DIMETHYL DIETHYL LEAD	1667	UG/KG	15		50
82655	PBCH3(CH2CH3)3	METHYL TRIETHYL LEAD	1668	UG/KG	15		50
84501	PO_RAD_TOT	POLONIUM RADIATION TOTAL PO-210	1681	BQ/L			10
84510	PO_RAD_TOT	POLONIUM RADIATION TOTAL PO-210	1698	BQ/L			99
84591	PO_RAD_TOT	POLONIUM RADIATION TOTAL PO-210	1683	BQ/L			100
86510	RA_RAD	RADIUM RADIATION RA-226	1700	BQ/L			99
86590	RA_RAD_DIS	RADIUM RADIATION DISSOLVED RA-226	1683	BQ/L			999.999
86591	RA_RAD	RADIUM RADIATION RA-226	1683	BQ/L			999.999
88501	RA_RAD_TOT	RADIUM RADIATION TOTAL RA-226	1681	BQ/L			10
88502	RA_RAD	RADIUM RADIATION RA-226	1704	BQ/L			
88503	RA_RAD_TOT	RADIUM RADIATION TOTAL RA-226	1705	BQ/L	0.0037		
88504	RA_RAD_TOT	RADIUM RADIATION TOTAL RA-226	1706	BQ/L	0.0037		
88510	RA_RAD_DIS	RADIUM RADIATION DISSOLVED RA-226	1706	BQ/L			
88601	RA_RAD	RADIUM RADIATION RA-226	1704	BQ/KG			
88613	RA_RAD	RADIUM RADIATION RA-226	1705	BQ/G	0.0037		
88614	RA_RAD	RADIUM RADIATION RA-226	1706	BQ/G	0.0037		
90001	TH_TOT	THORIUM TOTAL	1711	UG/L	0.1		
90451	TH_TOT	THORIUM TOTAL	1712	UG/L	50		
90501	TH_RAD_232	THORIUM RADIATION TH-232	1681	BQ/L			10
90502	TH_RAD_TOT_232	THORIUM RADIATION TOTAL TH-232	1711	BQ/L	0.0037		
90510	TH_RAD_TOT_230	THORIUM RADIATION TOTAL TH-230	1711	BQ/L	0.0037		
90515	TH_RAD_TOT_228	THORIUM RADIATION TOTAL TH-228	1711	BQ/L	0.0074		
90520	TH_RAD_TOT_227	THORIUM RADIATION TOTAL TH-227	1711	BQ/L	0.0074		
90590	TH_TOT	THORIUM TOTAL	1683	UG/L			9999.99
90591	TH_RAD_230	THORIUM RADIATION TH-230	1683	BQ/L			100
90592	TH_RAD_232	THORIUM RADIATION TH-232	1683	BQ/L			100
92001	U_TOT	URANIUM TOTAL	1721	UG/L	0.001		
92101	U_DIS	URANIUM DISSOLVED	1722	MG/L			1
92111	U_DIS	URANIUM DISSOLVED	1723	UG/L			10
92112	U_DIS	URANIUM DISSOLVED	1724	UG/L	0.1		100
92115	U_TOT	URANIUM TOTAL	1725	UG/L			10000
92190	U_DIS	URANIUM DISSOLVED	1683	UG/L			100000
92191	U_TOT	URANIUM TOTAL	1683	UG/L			100000

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VMV CODE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
92451	U_TOT	URANIUM TOTAL	1728	UG/L	10		
92601	U_TOT	URANIUM TOTAL	1721	UG/G	0.001		
93000	15972-60-8	ALACHLOR	1730	UG/L	.04		100000
93001	5103-71-9	ALPHA-CHLORDANE	1730	UG/L	.02		100000
93002	5103-74-2	GAMMA-CHLORDANE	1730	UG/L	.005		100000
93003	133-06-2	CAPTAN	1730	UG/L	.15		100000
93004	1861-31-1	DACTHAL	1730	UG/L	.01		100000
93005	53-19-0	O,P'-DDD	1730	UG/L	.01		150000
93006	72-54-8	P,P'-DDD	1730	UG/L	.01		100000
93007	3424-82-6	O,P'-DDE	1730	UG/L	.01		100000
93008	72-55-9	P,P'-DDE	1730	UG/L	.01		100000
93009	789-02-6	O,P'-DDT	1730	UG/L	.02		200000
93010	50-29-3	P,P'-DDT	1730	UG/L	.02		200000
93011	2303-16-4	DIALLATE	1730	UG/L	.8		50000
93012	60-57-1	DIELDRIN	1730	UG/L	.01		100000
93013	2921-88-2	CHLORPYRIFOS	1730	UG/L	.01		100000
93014	959-98-8	ALPHA-ENDOSULFAN	1730	UG/L	.01		50000
93015	33213-65-9	BETA-ENDOSULFAN	1730	UG/L	.01		50000
93016	72-20-8	ENDRIN	1730	UG/L	.01		200000
93017	76-44-8	HEPTACHLOR	1730	UG/L	.01		100000
93018	1024-57-3	HEPTACHLOR EPOXIDE	1730	UG/L	.01		100000
93019	118-74-1	HEXACHLOROBENZENE	1730	UG/L	.005		100000
93020	319-84-6	ALPHA-BENZENEHEXACHLORIDE	1730	UG/L	.01		100000
93021	319-85-7	BETA-BENZENEHEXACHLORIDE	1730	UG/L	.01		100000
93022	58-89-9	GAMMA-BENZENEHEXACHLORIDE	1730	UG/L	.01		100000
93023	319-86-8	DELTA-BENZENEHEXACHLORIDE	1730	UG/L	.01		100000
93024	72-43-5	METHOXYCHLOR	1730	UG/L	.03		200000
93025	2385-85-5	MIREX	1730	UG/L	.01		200000
93026	72-56-0	PERTHANE	1730	UG/L	.25		100000
93027	1918-16-7	PROPACHLOR	1730	UG/L	.1		100000
93028	2303-17-5	TRIALLATE	1730	UG/L	.04		100000
93030	314-40-9	BROMACIL	1759	UG/L	.15		100000
93031	5902-51-2	TERBACIL	1759	UG/L	.25		200000
93032	1582-09-8	TRIFLURALIN	1759	UG/L	.1		200000
93033	2091-05-2	DINITRAMINE	1759	UG/L	1.25		200000
93034	88-85-7	DINOSEB	1759	UG/L	1.25		200000
93035	21087-64-9	METRIBUZIN	1759	UG/L	.07		200000
93036	709-98-8	PROPANIL	1759	UG/L	.5		200000
93037	94-75-7	2,4-D	1766	UG/L	.2		500000
93038	93-76-5	2,4,5-T	1766	UG/L	.2		500000
93039	1918-02-1	PICLORAM	1766	UG/L	.3		500000
93040	51338-27-3	DICLOFOP METHYL	1766	UG/L	.2		500000
93041	1918-00-9	DICAMBA	1766	UG/L	.2		500000
93042	93-72-1	FENOPROP	1766	UG/L	.3		500000
93043	94-82-6	2,4-DB	1766	UG/L	.3		500000
93044	120-36-5	DICHLORPROP	1766	UG/L	.2		500000
93100	51235-04-2	HEXAZINONE	1774	UG/L	.1		200000
93101	1563-66-2	CARBOFURAN	1775	UG/L	1		500000
93102	63-25-2	CARBARYL	1775	UG/L	.2		500000
93200	49866-87-7	DIFENZOQUAT	1777	UG/L	2		200000
93220	2764-72-9	DIQUAT	1778	UG/L	50		500000
93221	4685-14-7	PARAQUAT	1778	UG/L	50		500000
93300	64902-72-3	CHLORSULFURON	1780	UG/L	.02		200000
94000	3244-90-4	ASPON	1781	UG/L	.1		1000000
94001	299-86-5	CRUFOMATE	1781	UG/L	.2		200000
94002	115-90-2	FENSULFOTHION	1781	UG/L	.6		100000
94003	62-73-7	DICHLORVOS	1781	UG/L	.15		200000
94004	78-48-8	DEF	1781	UG/L	.3		200000
94005	298-03-3	DEMETON	1781	UG/L	.3		200000
94006	60-51-5	DIMETHOATE	1781	UG/L	.25		200000
94007	298-04-4	DISULFOTON	1781	UG/L	.15		100000
94008	563-12-2	ETHION	1781	UG/L	.1		200000
94009	55-38-9	FENTHION	1781	UG/L	.15		200000
94010	122-14-5	FENITROTHION	1781	UG/L	.15		200000
94011	944-22-9	FONOFOS	1781	UG/L	.05		200000
94012	86-50-0	AZINPHOS METHYL	1781	UG/L	.2		200000
94013	121-75-5	MALATHION	1781	UG/L	.1		500000
94014	298-00-0	PARATHION METHYL	1781	UG/L	.15		200000
94015	786-19-6	CARBOPHENOTHION	1781	UG/L	.3		200000
94016	26718-65-0	MEVINPHOS	1781	UG/L	.15		200000
94017	13194-48-4	ETHODROPHOS	1781	UG/L	.15		200000
94018	311-45-5	PARA-OXON	1781	UG/L	.15		200000
94019	56-38-2	PARATHION	1781	UG/L	.15		200000
94020	298-02-2	PHORATE	1781	UG/L	.1		200000
94021	299-84-3	FENCHLORPHOS	1781	UG/L	.15		200000
94022	22248-79-9	TETRACHLORVINPHOS	1781	UG/L	.15		200000
94023	1912-24-9	ATRAZINE	1781	UG/L	.6		200000

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VMV CODE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
94024	2032-59-9	AMINOCARB	1781	UG/L	2.5		200000
94025	21725-46-2	CYANAZINE	1781	UG/L	.6		200000
94026	333-41-5	DIAZINON	1781	UG/L	.05		200000
94027	7287-19-6	PROMETRYNE	1781	UG/L	1.2		200000
94028	139-40-2	PROPAZINE	1781	UG/L	.5		200000
94029	122-34-9	SIMAZINE	1781	UG/L	3		200000
95000	65-85-0	BENZOIC ACID	2319	UG/L	2		500000
95001	59-50-7	4-CHLORO-3-METHYLPHENOL	2319	UG/L	10		
95002	95-57-8	2-CHLOROPHENOL	2319	UG/L	10		
95003	120-83-2	2,4-DICHLOROPHENOL	2319	UG/L	10		
95004	105-67-9	2,4-DIMETHYLPHENOL	2319	UG/L	10		
95005	534-52-1	2-METHYL-4,6-DINITROPHENOL	2319	UG/L	1		500000
95006	51-28-1	2,4-DINITROPHENOL	2319	UG/L	10		
95007	57-10-3	HEXADECANOIC ACID	2319	UG/L	3		500000
95008	88-75-5	2-NITROPHENOL	2319	UG/L	1		500000
95009	100-02-7	4-NITROPHENOL	2319	UG/L	10		
95010	87-86-5	PENTACHLOROPHENOL	2319	UG/L	10		
95011	108-95-2	PHENOL	2319	UG/L	10		
95012	95-95-4	2,4,5-TRICHLOROPHENOL	2319	UG/L	10		
95013	88-06-2	2,4,6-TRICHLOROPHENOL	2319	UG/L	10		
95014	83-32-9	ACENAPHTHENE	2319	UG/L	10		
95015	208-96-8	ACENAPHTHYLENE	2319	UG/L	10		
95016	120-12-7	ANTHRACENE	2319	UG/L	10		
95017	56-55-3	BENZ(A)ANTHRACENE	2319	UG/L	10		
95018	207-08-9	BENZO(K)FLUORANTHENE	2319	UG/L	20		
95019	191-24-2	BENZO(G,H,I)PERYLENE	2319	UG/L	20		
95020	50-32-8	BENZO(A)PYRENE	2319	UG/L	10		
95021	218-01-9	CHRYSENE	2319	UG/L	10		
95022	53-70-3	DIBENZ(A,H)ANTHRACENE	2319	UG/L	10		
95023	206-44-0	FLUORANTHENE	2319	UG/L	10		
95024	86-73-7	FLUORENE	2319	UG/L	10		
95025	193-39-5	INDENO(1,2,3-C,D)PYRENE	2319	UG/L	10		
95026	91-20-3	NAPHTHALENE	2319	UG/L	10		
95027	198-55-0	PERYLENE	2319	UG/L	10		
95028	85-01-8	PHENANTHRENE	2319	UG/L	10		
95029	129-00-0	PYRENE	2319	UG/L	10		
95030	78-59-1	ISOPHORONE	2319	UG/L	1		500000
95031	205-99-2	BENZO(B)FLUORANTHENE	2319	UG/L	10		
95032	91-58-7	2-CHLORONAPHTHALENE	2319	UG/L	10		
95033	118-74-1	HEXACHLOROBENZENE	2319	UG/L	1		500000
95034	87-68-3	HEXACHLOROBUTADIENE	2319	UG/L	5		500000
95035	77-47-4	HEXACHLOROCYCLOPENTADIENE	2319	UG/L	1		500000
95036	67-72-1	HEXACHLOROETHANE	2319	UG/L	5		500000
95037	120-82-1	1,2,4-TRICHLOROBENZENE	2319	UG/L	1		500000
95038	92-87-5	BENZIDENE	2319	UG/L	2		500000
95039	121-14-2	2,4-DINITROTOLUENE	2319	UG/L	1		500000
95040	606-20-2	2,6-DINITROTOLUENE	2319	UG/L	1		500000
95041	122-66-7	1,2-DIPHENYLHYDRAZINE	2319	UG/L	1		500000
95042	98-95-3	NITROBENZENE	2319	UG/L	1		500000
95043	86-30-6	N-NITROSODIPHENYLAMINE	2319	UG/L	2		500000
95044	621-64-7	N-NITROSODI-N-PROPYLAMINE	2319	UG/L	1		500000
95045	101-55-3	4-BROMOPHENYL PHENYL ETHER	2319	UG/L	1		500000
95046	111-91-1	BIS(2-CHLOROETHOXY) ETHER	2319	UG/L	1		500000
95047	111-44-4	BIS(2-CHLOROETHYL) ETHER	2319	UG/L	1		500000
95048	108-60-11	BIS(2-CHLOROISOPROPYL) ETHER	2319	UG/L	1		500000
95049	7005-72-3	4-CHLOROPHENYL PHENYL ETHER	2319	UG/L	1		500000
95050	85-68-7	BUTYLBENZYL PHTHALATE	2319	UG/L	20		
95051	84-74-2	DI-N-BUTYL PHTHALATE	2319	UG/L	20		
95052	84-66-2	DIETHYL PHTHALATE	2319	UG/L	20		
95053	131-11-3	DIMETHYL PHTHALATE	2319	UG/L	20		
95054	117-84-0	DI-N-OCTYL PHTHALATE	2319	UG/L	1		500000
95055	117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	2319	UG/L	20		
95060	602-87-9	5_NITROACENAPHTHENE	2319	UG/L	10		
95061	79-92-5	CAMPHENE	2319	UG/L	10		
95062	120-72-9	INDOLE	2319	UG/L	10		
95063	91-57-6	2-METHYLNAPHTHALENE	2319	UG/L	10		
95064	58-90-2	2,3,4,6-TETRACHLOROPHENOL	2319	UG/L	10		
95065	15950-66-0	2,3,4-TRICHLOROPHENOL	2319	UG/L	10		
95066	108-39-4	M-CRESOL	2319	UG/L	10		
95067	106-44-5	P-CRESOL	2319	UG/L	10		
95068	90-13-1	1-CHLORONAPHTHALENE	2319	UG/L	10		
95069	90-12-0	1-METHYLNAPHTHALENE	2319	UG/L	10		
95070	4901-51-3	2,3,4,5-TETRACHLOROPHENOL	2319	UG/L	10		
95071	935-95-5	2,3,5,6-TETRACHLOROPHENOL	2319	UG/L	10		
95072	933-78-8	2,3,5-TRICHLOROPHENOL	2319	UG/L	10		
95073	87-65-0	2,6-DICHLOROPHENOL	2319	UG/L	10		
95074	534-52-1	2-METHYL-4,6-DINITROPHENOL	2319	UG/L	10		

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VMV CODE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
95075	95-48-7	O-CRESOL	2319	UG/L	10		
95076	95-47-6	O-XYLENE	2321	UG/L	1		
95077	108-38-3	M-XYLENE	2321	UG/L	1		
95078	106-42-3	P-XYLENE	2321	UG/L	1		
95100	71-43-2	BENZENE	1867	UG/L	.1		500000
95101	75-27-4	DICHLOROBROMOMETHANE	1867	UG/L	.5		500000
95102	75-25-2	BROMOFORM	1867	UG/L	5		500000
95103	56-23-5	CARBON TETRACHLORIDE	1867	UG/L	.1		500000
95104	108-90-7	CHLOROBENZENE	1867	UG/L	.2		500000
95105	67-66-3	CHLOROFORM	1867	UG/L	.1		500000
95106	124-48-1	DIBROMOCHLOROMETHANE	1867	UG/L	1		500000
95107	95-50-1	1,2-DICHLOROBENZENE	1867	UG/L	.5		500000
95108	541-73-1	1,3-DICHLOROBENZENE	1867	UG/L	.5		500000
95109	106-46-7	1,4-DICHLOROBENZENE	1867	UG/L	.5		500000
95110	75-34-3	1,1-DICHLOROETHANE	1867	UG/L	.2		500000
95111	107-06-2	1,2-DICHLOROETHANE	1867	UG/L	1		500000
95112	75-35-4	1,1-DICHLOROETHYLENE	1867	UG/L	.5		500000
95113	156-60-5	TRANS-1,2-DICHLOROETHENE	1867	UG/L	.5		500000
95114	78-87-5	1,2-DICHLOROPROPANE	1867	UG/L	.5		500000
95115	10061-01-5	CIS-1,3-DICHLOROPROPENE	1867	UG/L	.5		500000
95116	10061-02-6	TRANS-1,3-DICHLOROPROPENE	1867	UG/L	.5		500000
95117	100-41-4	ETHYL BENZENE	1867	UG/L	.1		500000
95118	75-09-2	METHYLENE CHLORIDE	1867	UG/L	10		500000
95119	79-34-5	1,1,2,2-TETRACHLOROETHANE	1867	UG/L	5		500000
95120	127-18-4	TETRACHLOROETHYLENE	1867	UG/L	.2		500000
95121	108-88-3	TOLUENE	1867	UG/L	.1		500000
95122	71-55-6	1,1,1-TRICHLOROETHANE	1867	UG/L	.2		500000
95123	79-00-5	1,1,2-TRICHLOROETHANE	1867	UG/L	1		500000
95124	79-01-6	TRICHLOROETHYLENE	1867	UG/L	.2		500000
95125	95-47-6	O-XYLENE	1867	UG/L	.1		500000
95126	108-38-3	M-XYLENE	1867	UG/L	.1		500000
95127	106-42-3	P-XYLENE	1867	UG/L	.1		500000
95130	83-32-9	ACENAPHTHENE	2316	UG/L	0.1		
95131	208-96-8	ACENAPHTHYLENE	2316	UG/L	0.1		
95132	120-12-7	ANTHRACENE	2316	UG/L	0.1		
95133	50-32-8	BENZO(A)PYRENE	2316	UG/L	0.01		
95134	86-73-7	FLUORENE	2316	UG/L	0.1		
95135	91-20-3	NAPHTHALENE	2316	UG/L	0.1		
95136	90-12-0	1-METHYLNAPHTHALENE	2316	UG/L	0.1		
95137	91-57-6	2-METHYLNAPHTHALENE	2316	UG/L	0.1		
95138	85-01-8	PHENANTHRENE	2316	UG/L	0.1		
95139	132-64-9	DIBENZOFURAN	2316	UG/L	0.1		
95140	86-74-8	CARBAZOLE	2316	UG/L	0.1		
95141	87-86-5	PENTACHLOROPHENOL	2316	UG/L	0.1		
95142	95-57-8	2-CHLOROPHENOL	2317	UG/L	1		
95143	108-95-2	PHENOL	2317	UG/L	5		
95144	88-75-5	2-NITROPHENOL	2317	UG/L	10		
95145	105-67-9	2,4-DIMETHYLPHENOL	2317	UG/L	1.0		
95146	120-83-2	2,4-DICHLOROPHENOL	2317	UG/L	1		
95147	59-50-7	4-CHLORO-3-METHYLPHENOL	2317	UG/L	5		
95148	88-06-2	2,4,6-TRICHLOROPHENOL	2317	UG/L	5		
95149	51-28-1	2,4-DINITROPHENOL	2317	UG/L	5		
95150	100-02-7	4-NITROPHENOL	2317	UG/L	10		
95151	534-52-1	2-METHYL-4,6-DINITROPHENOL	2317	UG/L	10		
95152	87-86-5	PENTACHLOROPHENOL	2317	UG/L	5		
95153	58-90-2	2,3,4,6-TETRACHLOROPHENOL	2317	UG/L	5		
95175	1912-24-9	ATRAZINE	2300	UG/L	0.50		
95176	314-40-9	BROMACIL	2300	UG/L	1.0		
95177	51235-04-2	HEXAZINONE	2300	UG/L	5.0		
95178	21087-64-9	METRIBUZIN	2300	UG/L	1.0		
95179	1610-18-0	PROMETON	2300	UG/L	0.50		
95180	709-98-8	PROPANIL	2300	UG/L	2.0		
95181	139-40-2	PROPAZINE	2300	UG/L	0.50		
95182	122-34-9	SIMAZINE	2300	UG/L	0.50		
95183	2303-17-5	TRIALLATE	2300	UG/L	1.0		
95184	1582-09-8	TRIFLURALIN	2300	UG/L	0.50		
95200	71-43-2	BENZENE	2321	UG/L	1		
95201	75-27-4	DICHLOROBROMOMETHANE	2321	UG/L	1		500000
95202	75-25-2	BROMOFORM	2321	UG/L	5		500000
95203	74-83-9	BROMOMETHANE	2321	UG/L	1		500000
95204	56-23-5	CARBON TETRACHLORIDE	2321	UG/L	1		500000
95205	108-90-7	CHLOROBENZENE	2321	UG/L	1		500000
95206	75-00-3	CHLOROETHANE	2321	UG/L	1		500000
95207	110-75-8	2-CHLOROETHYLVINYLETHER	2321	UG/L	4		500000
95208	67-66-3	CHLOROFORM	2321	UG/L	1		500000
95209	124-48-1	DIBROMOCHLOROMETHANE	2321	UG/L	1		500000
95210	74-95-3	DIBROMOMETHANE	2321	UG/L	1		500000

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VMV CODE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
95211	95-50-1	1,2-DICHLOROBENZENE	2321	UG/L	1		500000
95212	541-73-1	1,3-DICHLOROBENZENE	2321	UG/L	1		500000
95213	106-46-7	1,4-DICHLOROBENZENE	2321	UG/L	1		500000
95214	75-34-3	1,1-DICHLOROETHANE	2321	UG/L	1		500000
95215	107-06-2	1,2-DICHLOROETHANE	2321	UG/L	1		500000
95216	75-35-4	1,1-DICHLOROETHYLENE	2321	UG/L	1		500000
95217	156-60-5	TRANS-1,2-DICHLOROETHENE	2321	UG/L	1		500000
95218	78-87-5	1,2-DICHLOROPROPANE	2321	UG/L	1		500000
95219	10061-01-5	CIS-1,3-DICHLOROPROPENE	2321	UG/L	3		500000
95220	10061-02-6	TRANS-1,3-DICHLOROPROPENE	2321	UG/L	3		500000
95221	100-41-4	ETHYL BENZENE	2321	UG/L	1		
95222	75-09-2	METHYLENE CHLORIDE	2321	UG/L	2		500000
95223	100-42-5	STYRENE	2321	UG/L	1		500000
95224	79-34-5	1,1,2,2-TETRACHLOROETHANE	2321	UG/L	5		500000
95225	127-18-4	TETRACHLOROETHYLENE	2321	UG/L	3		500000
95226	108-88-3	TOLUENE	2321	UG/L	1		
95227	71-55-6	1,1,1-TRICHLOROETHANE	2321	UG/L	1		500000
95228	79-00-5	1,1,2-TRICHLOROETHANE	2321	UG/L	1		500000
95229	75-69-4	TRICHLOROFLUOROMETHANE	2321	UG/L	1		500000
95230	74-97-5	BROMOCHLOROMETHANE	2321	UG/L	1		500000
95231	79-01-6	TRICHLOROETHYLENE	2321	UG/L	1		500000
95232	75-01-4	VINYL CHLORIDE	2321	UG/L	1		500000
95233	95-47-6	O-XYLENE	2321	UG/L	1		500000
95234	1330-20-7	M- + P-XYLENE	2321	UG/L	1		500000
95240	309-00-2	ALDRIN	2301	UG/L	0.01		
95241	319-84-6	ALPHA-BENZENEHEXACHLORIDE	2301	UG/L	0.02		
95242	319-85-7	BETA-BENZENEHEXACHLORIDE	2301	UG/L	0.03		
95243	319-86-8	DELTA-BENZENEHEXACHLORIDE	2301	UG/L	0.01		
95244	58-89-9	GAMMA-BENZENEHEXACHLORIDE	2301	UG/L	0.02		
95245	5103-71-9	ALPHA-CHLORDANE	2301	UG/L	0.01		
95246	5103-74-2	GAMMA-CHLORDANE	2301	UG/L	0.01		
95247	53-19-0	O,P'-DDD	2301	UG/L	0.03		
95248	72-54-8	P,P'-DDD	2301	UG/L	0.03		
95249	3424-82-6	O,P'-DDE	2301	UG/L	0.01		
95250	72-55-9	P,P'-DDE	2301	UG/L	0.01		
95251	789-02-6	O,P'-DDT	2301	UG/L	0.03		
95252	50-29-3	P,P'-DDT	2301	UG/L	0.03		
95253	51338-27-3	DICLOFOP METHYL	2300	UG/L	0.09		
95254	115-32-2	DICOFOL	2301	UG/L	0.05		
95255	60-57-1	DIELDRIN	2301	UG/L	0.02		
95256	959-98-8	ALPHA-ENDOSULFAN	2301	UG/L	0.01		
95257	33213-65-9	BETA-ENDOSULFAN	2301	UG/L	0.01		
95258	72-20-8	ENDRIN	2301	UG/L	0.02		
95259	76-44-8	HEPTACHLOR	2301	UG/L	0.02		
95260	1024-57-3	HEPTACHLOR EPOXIDE	2301	UG/L	0.01		
95261	72-43-5	METHOXYCHLOR	2301	UG/L	0.04		
95262	2385-85-5	MIREX	2301	UG/L	0.02		
95263	1918-16-7	PROPACHLOR	2301	UG/L	0.20		
95264	1582-09-8	TRIFLURALIN	2301	UG/L	0.03		
95265	12674-11-2	AROCLOR 1016	2301	UG/L	0.05		
95266	11104-28-2	AROCLOR 1221	2301	UG/L	0.05		
95267	11141-16-5	AROCLOR 1232	2301	UG/L	0.05		
95268	53469-21-9	AROCLOR 1242	2301	UG/L	0.05		
95269	12672-29-6	AROCLOR 1248	2301	UG/L	0.05		
95270	11097-69-1	AROCLOR 1254	2301	UG/L	0.05		
95271	11096-82-5	AROCLOR 1260	2301	UG/L	0.05		
95300	85-68-7	BUTYLBENZYL PHTHALATE	1930	UG/L	1		500000
95301	117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	1930	UG/L	1		500000
95302	137-89-3	BIS(2-ETHYLHEXYL) ISOPHTHALATE	1930	UG/L	1		500000
95303	THALEST-200	BIS(ETHOXYHEXYL) PHTHALATE	1930	UG/L	1		500000
95304	THALEST-100	BIS(4-METHYL-2-PENTYL) PHTHALATE	1930	UG/L	1		500000
95305	117-82-8	BIS(METHOXYETHYL) PHTHALATE	1930	UG/L	1		500000
95306	131-18-0	DIPENTYL PHTHALATE	1930	UG/L	1		500000
95307	84-61-7	DICYCLOHEXYL PHTHALATE	1930	UG/L	1		500000
95308	84-66-2	DIETHYL PHTHALATE	1930	UG/L	1		500000
95309	84-69-5	DI-ISOBUTYL PHTHALATE	1930	UG/L	1		500000
95310	1459-93-4	DIMETHYL ISOPHTHALATE	1930	UG/L	1		500000
95311	131-11-3	DIMETHYL PHTHALATE	1930	UG/L	1		500000
95312	84-74-2	DI-N-BUTYL PHTHALATE	1930	UG/L	1		500000
95313	117-84-0	DI-N-OCTYL PHTHALATE	1930	UG/L	1		500000
95314	84-76-4	DINONYL PHTHALATE	1930	UG/L	1		500000
95315	84-62-8	DIPHENYL PHTHALATE	1930	UG/L	1		500000
95400	1582-09-8	TRIFLURALIN	2366	NG/G	1		
95401	2303-16-4	DIALLATE	2366	NG/G	4		
95402	2303-17-5	TRIALLATE	2366	NG/G	2		
95403	1912-24-9	ATRAZINE	2366	NG/G	4		
95404	101-27-9	BARBAN	2366	NG/G	4		

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VMV CODE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
95405	40843-25-2	HOEGRASS	2366	NG/G	4		
95406	22212-55-1	BENZOYLPROP-ETHYL	2366	NG/G	2		
95407	51218-45-2	METOLACHLOR	2366	NG/G	4		
95408	118-74-1	HEXACHLOROBENZENE	2366	NG/G	4		
95409	319-84-6	ALPHA-BENZENEHEXACHLORIDE	2366	NG/G	4		
95410	58-89-9	GAMMA-BENZENEHEXACHLORIDE	2366	NG/G	4		
95411	76-44-8	HEPTACHLOR	2366	NG/G	4		
95412	309-00-2	ALDRIN	2366	NG/G	4		
95413	1024-57-3	HEPTACHLOR EPOXIDE	2366	NG/G	4		
95414	5103-74-2	GAMMA-CHLORDANE	2366	NG/G	4		
95415	5103-71-9	ALPHA-CHLORDANE	2366	NG/G	4		
95416	959-98-8	ALPHA-ENDOSULFAN	2366	NG/G	4		
95417	72-55-9	P,P'-DDE	2366	NG/G	4		
95418	60-57-1	DIELDRIN	2366	NG/G	4		
95419	72-20-8	ENDRIN	2366	NG/G	4		
95420	789-02-6	O,P'-DDT	2366	NG/G	4		
95421	72-55-9	P,P'-DDE	2366	NG/G	4		
95422	50-29-3	P,P'-DDT	2366	NG/G	4		
95423	33213-65-9	BETA-ENDOSULFAN	2366	NG/G	4		
95424	2385-85-5	MIREX	2366	NG/G	4		
95425	72-43-5	METHOXYCHLOR	2366	NG/G	4		
95426	1336-36-3	POLYCHLORINATED BIPHENYLS	2366	NG/G	9		
96000	94-74-6	MCPA	1946	UG/L	.2		500000
96001	118-74-1	HEXACHLOROBENZENE	1947	NG/L	0.070		
96002	50-29-3	P,P'-DDT	1947	NG/L	0.280		
96003	789-02-6	O,P'-DDT	1947	NG/L	0.260		
96004	72-54-8	P,P'-DDD	1947	NG/L	0.220		
96005	72-55-9	P,P'-DDE	1947	NG/L	0.200		
96006	72-43-5	METHOXYCHLOR	1947	NG/L	1.600		
96007	76-44-8	HEPTACHLOR	1947	NG/L	0.110		
96008	1024-57-3	HEPTACHLOR EPOXIDE	1947	NG/L	0.060		
96009	959-98-8	ALPHA-ENDOSULFAN	1947	NG/L	0.050		
96010	33213-65-9	BETA-ENDOSULFAN	1947	NG/L	0.090		
96011	5103-71-9	ALPHA-CHLORDANE	1947	NG/L	0.070		
96012	5103-74-2	GAMMA-CHLORDANE	1947	NG/L	0.040		
96013	58-89-9	GAMMA-BENZENEHEXACHLORIDE	1947	NG/L	0.400		
96014	319-84-6	ALPHA-BENZENEHEXACHLORIDE	1947	NG/L	1.300		
96015	2385-85-5	MIREX	1947	NG/L	0.110		
96016	309-00-2	ALDRIN	1947	NG/L	0.070		
96017	72-20-8	ENDRIN	1947	NG/L	0.140		
96018	60-57-1	DIELDRIN	1947	NG/L	0.180		
96019	1336-36-3	POLYCHLORINATED BIPHENYLS	1947	NG/L	3.000		
96100	150-68-5	MONURON	1966	UG/L	1		500000
96101	330-54-1	DIURON	1966	UG/L	1		500000
96102	330-55-2	LINURON	1966	UG/L	1		500000
96103	34014-18-1	TEBUTHIURON	1966	UG/L	1		500000
96110	1582-09-8	TRIFLURALIN	2344	NG/L	0.4		
96111	2303-16-4	DIALLATE	2344	NG/L	6.5		
96112	2303-17-5	TRIALLATE	2344	NG/L	0.7		
96113	1912-24-9	ATRAZINE	2344	NG/L	3.0		
96114	101-27-9	BARBAN	2344	NG/L	7.6		
96115	40843-25-2	HOEGRASS	2344	NG/L	3.4		
96116	22212-55-1	BENZOYLPROP-ETHYL	2344	NG/L	2.1		
96117	298-02-2	PHORATE	2341	NG/L	0.5		
96118	333-41-5	DIAZINON	2341	NG/L	0.5		
96119	298-04-4	DISULFOTON	2341	NG/L	0.5		
96120	299-84-3	FENCHLORPHOS	2341	NG/L	0.5		
96121	298-00-0	PARATHION METHYL	2341	NG/L	0.5		
96122	121-75-5	MALATHION	2341	NG/L	1.3		
96123	56-38-2	PARATHION	2341	NG/L	0.5		
96124	299-86-5	CRUFOMATE	2341	NG/L	0.5		
96125	563-12-2	ETHION	2341	NG/L	0.5		
96126	786-19-6	CARBOPHENOTHION	2341	NG/L	0.5		
96127	732-11-6	PHOSMET TOTAL	2341	NG/L	5.0		
96128	86-50-0	AZINPHOS METHYL	2341	NG/L	12.5		
96129	2642-71-9	AZINPHOS ETHYL	2341	NG/L	0.5		
96130	60-51-5	DIMETHOATE	2341	NG/L	0.3		
96131	13171-21-6	PHOSPHAMIDON	2341	NG/L	1.3		
96132	122-14-5	FENITROTHION	2341	NG/L	0.3		
96133	120-83-2	2,4-DICHLOROPHENOL	2345	NG/L	0.44		
96134	576-24-9	2,3-DICHLOROPHENOL	2345	NG/L	0.71		
96135	87-65-0	2,6-DICHLOROPHENOL	2345	NG/L	0.35		
96136	59-50-7	4-CHLORO-3-METHYLPHENOL	2345	NG/L	0.61		
96137	933-78-8	2,3,5-TRICHLOROPHENOL	2345	NG/L	0.81		
96138	15950-66-0	2,3,4-TRICHLOROPHENOL	2345	NG/L	0.8		
96139	933-75-5	2,3,6-TRICHLOROPHENOL	2345	NG/L	0.44		
96140	591-35-5	3,5-DICHLOROPHENOL	2345	NG/L	0.45		

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VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
96141	95-77-2	3,4-DICHLOROPHENOL	2345	NG/L	0.76		
96142	609-19-8	3,4,5-TRICHLOROPHENOL	2345	NG/L	0.66		
96143	91-20-3	NAPHTHALENE	2345	NG/L	0.11		
96144	120-12-7	ANTHRACENE	2345	NG/L	0.26		
96145	53-70-3	DIBENZ(A,H)ANTHRACENE	2345	NG/L	0.4		
96146	131-11-3	DIMETHYL PHTHALATE	2345	NG/L	0.3		
96147	84-66-2	DIETHYL PHTHALATE	2345	NG/L	0.31		
96148	84-74-2	DI-N-BUTYL PHTHALATE	2345	NG/L	0.29		
96149	85-68-7	BUTYLBENZYL PHTHALATE	2345	NG/L	0.5		
96150	1912-24-9	ATRAZINE	2345	NG/L	1.15		
96151	51218-45-2	METOLACHLOR	2345	NG/L	0.35		
96152	7421-93-4	ENDRIN ALDEHYDE	2342	NG/L	0.13		
96153	77-47-4	HEXACHLOROCYCLOPENTADIENE	2342	NG/L	0.04		
96154	39801-14-4	PHOTOMIREX	2342	NG/L	0.06		
96155	120-83-2	2,4-DICHLOROPHENOL	2340	NG/G	369		
96156	576-24-9	2,3-DICHLOROPHENOL	2340	NG/G	420		
96157	87-65-0	2,6-DICHLOROPHENOL	2340	NG/G	287		
96158	59-50-7	4-CHLORO-3-METHYLPHENOL	2340	NG/G	463		
96159	933-78-8	2,3,5-TRICHLOROPHENOL	2340	NG/G	380		
96160	15950-66-0	2,3,4-TRICHLOROPHENOL	2340	NG/G	495		
96161	933-75-5	2,3,6-TRICHLOROPHENOL	2340	NG/G	423		
96162	591-35-5	3,5-DICHLOROPHENOL	2340	NG/G	295		
96163	95-77-2	3,4-DICHLOROPHENOL	2340	NG/G	288		
96164	609-19-8	3,4,5-TRICHLOROPHENOL	2340	NG/G	425		
96200	51218-45-2	METOLACHLOR	1970	NG/L	0.1		500
96201	206-44-0	FLUORANTHENE	1947	NG/L	0.350		
96202	129-00-0	PYRENE	1947	NG/L	0.320		
96203	56-55-3	BENZ(A)ANTHRACENE	1947	NG/L	0.260		
96204	218-01-9	CHRYSENE	1947	NG/L	0.570		
96205	117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	1947	NG/L	0.160		
96206	117-84-0	DI-N-OCTYL PHTHALATE	1947	NG/L	0.150		
96207	205-99-2	BENZO(B)FLUORANTHENE	1947	NG/L	0.500		
96208	207-08-9	BENZO(K)FLUORANTHENE	1947	NG/L	0.490		
96209	50-32-8	BENZO(A)PYRENE	1947	NG/L	0.460		
96210	1746-01-6	2,3,7,8-TCDD	1947	NG/L	0.020		
96211	119-64-2	1,2,3,4-TETRAHYDRONAPHTHALENE	1981	NG/L	10		
96212	91-57-6	2-METHYLNAPHTHALENE	1981	NG/L	10		
96213	90-12-0	1-METHYLNAPHTHALENE	1981	NG/L	10		
96214	91-58-7	2-CHLORONAPHTHALENE	1981	NG/L	10		
96215	208-96-8	ACENAPHTHYLENE	1981	NG/L	10		
96216	83-32-9	ACENAPHTHENE	1981	NG/L	10		
96217	86-73-7	FLUORENE	1981	NG/L	15		
96218	85-01-8	PHENANTHRENE	1981	NG/L	15		
96219	129-00-0	PYRENE	1981	NG/L	15		
96220	206-44-0	FLUORANTHENE	1981	NG/L	15		
96221	205-99-2	BENZO(B)FLUORANTHENE	1981	NG/L	30		
96222	207-08-9	BENZO(K)FLUORANTHENE	1981	NG/L	30		
96223	50-32-8	BENZO(A)PYRENE	1981	NG/L	30		
96224	193-39-5	INDENO(1,2,3-C,D)PYRENE	1981	NG/L	30		
96225	193-39-5	INDENO(1,2,3-C,D)PYRENE	1981	NG/L	30		
96226	95-13-6	INDENE	1981	NG/L	30		
96230	108-36-1	1,3-DIBROMOBENZENE	1997	UG/L	0.8		
96231	626-39-1	1,3,5-TRIBROMOBENZENE	1997	UG/L	0.5		
96232	95-94-3	1,2,4,5-TETRACHLOROBENZENE	1997	UG/L	0.7		
96233	33284-54-7	2,3,5,6-TETRACHLOROBIPHENYL	1997	UG/L	0.6		
96234	319-86-8	DELTA-BENZENEHEXACHLORIDE	1997	UG/L	0.6		
96235	ORCIN-100	ENDRIN KETONE	1997	UG/L	0.7		
96250	108-36-1	1,3-DIBROMOBENZENE	2003	UG/L	0.8		
96251	626-39-1	1,3,5-TRIBROMOBENZENE	2003	UG/L	0.5		
96252	636-28-2	1,2,4,5-TETRABROMOBENZENE	2003	UG/L	0.7		
96253	33284-54-7	2,3,5,6-TETRACHLOROBIPHENYL	2003	UG/L	0.6		
96254	319-86-8	DELTA-BENZENEHEXACHLORIDE	2003	UG/L	0.6		
96255	ORCIN-100	ENDRIN KETONE	2003	UG/L	0.7		
96260	29082-74-4	OCTACHLOROSTYRENE	2009	NG/L	0.05		
96261	87-68-3	HEXACHLOROBUTADIENE	2009	NG/L	0.05		
96265	95-95-4	2,4,5-TRICHLOROPHENOL	2011	NG/L	0.13		
96266	88-06-2	2,4,6-TRICHLOROPHENOL	2011	NG/L	0.13		
96267	87-86-5	PENTACHLOROPHENOL	2011	NG/L	0.13		
96268	108-95-2	PHENOL	2011	NG/L	0.13		
96270	95-13-6	INDENE	2015	NG/L	0.40		
96271	119-64-2	1,2,3,4-TETRAHYDRONAPHTHALENE	2015	NG/L	0.40		
96272	91-57-6	2-METHYLNAPHTHALENE	2015	NG/L	0.40		
96273	90-12-0	1-METHYLNAPHTHALENE	2015	NG/L	0.40		
96274	91-58-7	2-CHLORONAPHTHALENE	2015	NG/L	0.40		
96275	208-96-8	ACENAPHTHYLENE	2015	NG/L	0.40		
96276	83-32-9	ACENAPHTHENE	2015	NG/L	0.40		
96277	86-73-7	FLUORENE	2015	NG/L	0.40		

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VMV CODE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
96278	85-01-8	PHENANTHRENE	2015	NG/L	0.40		
96279	193-39-5	INDENO(1,2,3-C,D)PYRENE	2015	NG/L	1.0		
96280	191-24-2	BENZO(G,H,I)PERYLENE	2015	NG/L	1.0		
96281	106-46-7	1,4-DICHLOROBENZENE	1947	NG/L	0.820		
96282	95-50-1	1,2-DICHLOROBENZENE	1947	NG/L	0.550		
96283	108-70-3	1,3,5-TRICHLOROBENZENE	1947	NG/L	0.400		
96284	120-82-1	1,2,4-TRICHLOROBENZENE	1947	NG/L	0.330		
96285	87-61-6	1,2,3-TRICHLOROBENZENE	1947	NG/L	0.070		
96286	634-66-2	1,2,3,4-TETRACHLOROBENZENE	1947	NG/L	0.110		
96287	608-93-5	PENTACHLOROBENZENE	1947	NG/L	0.050		
96288	541-73-1	1,3-DICHLOROBENZENE	1947	NG/L	0.500		
96301	71-43-2	BENZENE	1947	NG/L	0.320		
96302	56-23-5	CARBON TETRACHLORIDE	1947	NG/L	0.180		
96303	67-66-3	CHLOROFORM	1947	NG/L	0.220		
96304	107-06-2	1,2-DICHLOROETHANE	1947	NG/L	0.210		
96305	75-09-2	METHYLENE CHLORIDE	1947	NG/L	0.160		
96306	127-18-4	TETRACHLOROETHYLENE	1947	NG/L	0.350		
96360	1689-84-5	BROMOXYNIL	2040	UG/L	0.03		
96500	2234-13-1_A	OCTACHLORONAPHTHALENE (FRACTION A)	2041	UG/L	0.7		
96501	2234-13-1_B	OCTACHLORONAPHTHALENE (FRACTION B)	2041	UG/L	0.7		
96505	2234-13-1_A	OCTACHLORONAPHTHALENE (FRACTION A)	2043	UG/L	0.7		
96506	2234-13-1_B	OCTACHLORONAPHTHALENE (FRACTION B)	2043	UG/L	0.7		
96510	206-44-0	FLUORANTHENE	2045	NG/G	195.0		
96511	129-00-0	PYRENE	2045	NG/G	182.0		
96512	56-55-3	BENZ(A)ANTHRACENE	2045	NG/G	270.0		
96513	218-01-9	CHRYSENE	2045	NG/G	490.0		
96514	117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	2045	NG/G	330.0		
96515	117-84-0	DI-N-OCTYL PHTHALATE	2045	NG/G	141.0		
96516	205-99-2	BENZO(B)FLUORANTHENE	2045	NG/G	430.0		
96517	207-08-9	BENZO(K)FLUORANTHENE	2045	NG/G	420.0		
96518	50-32-8	BENZO(A)PYRENE	2045	NG/G	30.0		
96519	1746-01-6	2,3,7,8-TCDD	2045	NG/G			
96530	95-95-4	2,4,5-TRICHLOROPHENOL	2055	NG/G	290.0		
96531	88-06-2	2,4,6-TRICHLOROPHENOL	2055	NG/G	720.0		
96532	87-86-5	PENTACHLOROPHENOL	2055	NG/G	600.0		
96533	108-95-2	PHENOL	2055	NG/G	860.0		
96540	108-36-1	1,3-DIBROMOBENZENE	2059	UG/L	0.8		
96541	626-39-1	1,3,5-TRIBROMOBENZENE	2059	UG/L	0.5		
96542	636-28-2	1,2,4,5-TETRABROMOBENZENE	2059	UG/L	0.7		
96543	33284-54-7	2,3,5,6-TETRACHLOROBIPHENYL	2059	UG/L	0.6		
96544	319-86-8	DELTA-BENZENEHEXACHLORIDE	2059	UG/L	0.6		
96545	ORCIN-100	ENDRIN KETONE	2059	UG/L	0.7		
96550	95-13-6	INDENE	2065	NG/G	10.0		
96551	119-64-2	1,2,3,4-TETRAHYDRONAPHTHALENE	2065	NG/G	10.0		
96552	91-57-6	2-METHYLNAPHTHALENE	2065	NG/G	10.0		
96553	90-12-0	1-METHYLNAPHTHALENE	2065	NG/G	10.0		
96554	91-58-7	2-CHLORONAPHTHALENE	2065	NG/G	10.0		
96555	208-96-8	ACENAPHTHYLENE	2065	NG/G	10.0		
96556	83-32-9	ACENAPHTHENE	2065	NG/G	10.0		
96557	86-73-7	FLUORENE	2065	NG/G	15.0		
96558	85-01-8	PHENANTHRENE	2065	NG/G	15.0		
96559	129-00-0	PYRENE	2065	NG/G	15.0		
96560	206-44-0	FLUORANTHENE	2065	NG/G	15.0		
96561	205-99-2	BENZO(B)FLUORANTHENE	2065	NG/G	30.0		
96562	207-08-9	BENZO(K)FLUORANTHENE	2065	NG/G	30.0		
96563	50-32-8	BENZO(A)PYRENE	2065	NG/G	30.0		
96564	193-39-5	INDENO(1,2,3-C,D)PYRENE	2065	NG/G	30.0		
96565	191-24-2	BENZO(G,H,I)PERYLENE	2065	NG/G	30.0		
96570	57-88-5	CHOLESTEROL	2081	UG/G	0.05		
96571	360-68-9	COPROSTANOL	2081	UG/G	0.05		
96580	95-57-8	2-CHLOROPHENOL	2083	NG/G	10		
96581	108-43-0	3-CHLOROPHENOL	2083	NG/G	10		
96582	106-48-9	4-CHLOROPHENOL	2083	NG/G	10		
96583	615-74-7	2-CHLORO-5-METHYLPHENOL	2083	NG/G	10		
96584	87-65-0	2,6-DICHLOROPHENOL	2083	NG/G	10		
96585	59-50-7	4-CHLORO-3-METHYLPHENOL	2083	NG/G	10		
96586	120-83-2	2,4-DICHLOROPHENOL	2083	NG/G	10		
96587	591-35-5	3,5-DICHLOROPHENOL	2083	NG/G	10		
96588	576-24-9	2,3-DICHLOROPHENOL	2083	NG/G	10		
96589	95-77-2	3,4-DICHLOROPHENOL	2083	NG/G	10		
96590	88-06-2	2,4,6-TRICHLOROPHENOL	2083	NG/G	10		
96591	933-75-5	2,3,6-TRICHLOROPHENOL	2083	NG/G	10		
96592	933-78-8	2,3,5-TRICHLOROPHENOL	2083	NG/G	10		
96593	95-95-4	2,4,5-TRICHLOROPHENOL	2083	NG/G	10		
96594	98-28-2	2-CHLORO-4-TERTIARYBUTYLPHENOL	2083	NG/G	10		
96595	15950-66-0	2,3,4-TRICHLOROPHENOL	2083	NG/G	10		
96596	609-19-8	3,4,5-TRICHLOROPHENOL	2083	NG/G	10		

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VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
96597	935-95-5	2,3,5,6-TETRACHLOROPHENOL	2083	NG/G	10		
96598	58-90-2	2,3,4,6-TETRACHLOROPHENOL	2083	NG/G	10		
96599	4901-51-3	2,3,4,5-TETRACHLOROPHENOL	2083	NG/G	10		
96600	87-86-5	PENTACHLOROPHENOL	2083	NG/G	10		
96750	118-74-1	HEXACHLOROBENZENE	2104	NG/G	5.0		
96751	319-84-6	ALPHA-BENZENEHEXACHLORIDE	2104	NG/G	5.0		
96752	58-89-9	GAMMA-BENZENEHEXACHLORIDE	2104	NG/G	5.0		
96753	76-44-8	HEPTACHLOR	2104	NG/G	5.0		
96754	309-00-2	ALDRIN	2104	NG/G	5.0		
96755	1024-57-3	HEPTACHLOR EPOXIDE	2104	NG/G	5.0		
96756	5103-74-2	GAMMA-CHLORDANE	2104	NG/G	5.0		
96757	5103-71-9	ALPHA-CHLORDANE	2104	NG/G	5.0		
96758	959-98-8	ALPHA-ENDOSULFAN	2104	NG/G	5.0		
96759	72-55-9	P,P'-DDE	2104	NG/G	5.0		
96760	60-57-1	DIELDRIN	2104	NG/G	5.0		
96761	72-20-8	ENDRIN	2104	NG/G	5.0		
96762	789-02-6	O,P'-DDT	2104	NG/G	5.0		
96763	72-54-8	P,P'-DDD	2104	NG/G	5.0		
96764	50-29-3	P,P'-DDT	2104	NG/G	5.0		
96765	33213-65-9	BETA-ENDOSULFAN	2104	NG/G	5.0		
96766	2385-85-5	MIREX	2104	NG/G	5.0		
96767	72-43-5	METHOXYCHLOR	2104	NG/G	5.0		
96768	1336-36-3	POLYCHLORINATED BIPHENYLS	2104	NG/G	5.0		
96769	541-73-1	1,3-DICHLOROBENZENE	2104	NG/G	50.0		
96770	106-46-7	1,4-DICHLOROBENZENE	2104	NG/G	50.0		
96771	95-50-1	1,2-DICHLOROBENZENE	2104	NG/G	50.0		
96772	108-70-3	1,3,5-TRICHLOROBENZENE	2104	NG/G	5.0		
96773	120-82-1	1,2,4-TRICHLOROBENZENE	2104	NG/G	5.0		
96774	87-61-6	1,2,3-TRICHLOROBENZENE	2104	NG/G	5.0		
96775	634-66-2	1,2,3,4-TETRACHLOROBENZENE	2104	NG/G	5.0		
96776	608-93-5	PENTACHLOROBENZENE	2104	NG/G	5.0		
96780	95-13-6	INDENE	2131	NG/G	10.0		
96781	119-64-2	1,2,3,4-TETRAHYDRONAPHTHALENE	2131	NG/G	10.0		
96782	90-12-0	1-METHYLNAPHTHALENE	2131	NG/G	10.0		
96783	90-12-0	1-METHYLNAPHTHALENE	2131	NG/G	10.0		
96784	91-58-7	2-CHLORONAPHTHALENE	2131	NG/G	10.0		
96785	208-96-8	ACENAPHTHYLENE	2131	NG/G	10.0		
96786	83-32-9	ACENAPHTHENE	2131	NG/G	10.0		
96787	86-73-7	FLUORENE	2131	NG/G	15.0		
96788	85-01-8	PHENANTHRENE	2131	NG/G	15.0		
96789	129-00-0	PYRENE	2131	NG/G	15.0		
96790	206-44-0	FLUORANTHENE	2131	NG/G	15.0		
96791	205-99-2	BENZO(B)FLUORANTHENE	2131	NG/G	30.0		
96792	207-08-9	BENZO(K)FLUORANTHENE	2131	NG/G	30.0		
96793	50-32-8	BENZO(A)PYRENE	2131	NG/G	30.0		
96794	193-39-5	INDENO(1,2,3-C,D)PYRENE	2131	NG/G	30.0		
96795	191-24-2	BENZO(G,H,I)PERYLENE	2131	NG/G	30.0		
96800	87-68-3	HEXACHLOROBUTADIENE	2147	NG/G	4.2		
96801	29082-74-4	OCTACHLOROSTYRENE	2147	NG/G	1.0		
96810	118-74-1	HEXACHLOROBENZENE	2149	NG/G	6.3		
96811	319-84-6	ALPHA-BENZENEHEXACHLORIDE	2149	NG/G	2.3		
96812	58-89-9	GAMMA-BENZENEHEXACHLORIDE	2149	NG/G	2.9		
96813	76-44-8	HEPTACHLOR	2149	NG/G	1.4		
96814	309-00-2	ALDRIN	2149	NG/G	1.6		
96815	1024-57-3	HEPTACHLOR EPOXIDE	2149	NG/G	1.9		
96816	5103-74-2	GAMMA-CHLORDANE	2149	NG/G	1.5		
96817	5103-71-9	ALPHA-CHLORDANE	2149	NG/G	2.3		
96818	959-98-8	ALPHA-ENDOSULFAN	2149	NG/G	1.4		
96819	72-55-9	P,P'-DDE	2149	NG/G	5.6		
96820	60-57-1	DIELDRIN	2149	NG/G	3.2		
96821	72-20-8	ENDRIN	2149	NG/G	2.9		
96822	789-02-6	O,P'-DDT	2149	NG/G	7.0		
96823	72-54-8	P,P'-DDD	2149	NG/G	6.0		
96824	50-29-3	P,P'-DDT	2149	NG/G	7.5		
96825	33213-65-9	BETA-ENDOSULFAN	2149	NG/G	2.9		
96826	2385-85-5	MIREX	2149	NG/G	4.3		
96827	72-43-5	METHOXYCHLOR	2149	NG/G	18.0		
96828	1336-36-3	POLYCHLORINATED BIPHENYLS	2149	NG/G	77.0		
96829	541-73-1	1,3-DICHLOROBENZENE	2149	NG/G	11.1		
96830	106-46-7	1,4-DICHLOROBENZENE	2149	NG/G	11.7		
96831	95-50-1	1,2-DICHLOROBENZENE	2149	NG/G	14.7		
96832	108-70-3	1,3,5-TRICHLOROBENZENE	2149	NG/G	1.8		
96833	120-82-1	1,2,4-TRICHLOROBENZENE	2149	NG/G	3.6		
96834	87-61-6	1,2,3-TRICHLOROBENZENE	2149	NG/G	1.9		
96835	634-66-2	1,2,3,4-TETRACHLOROBENZENE	2149	NG/G	2.7		
96836	608-93-5	PENTACHLOROBENZENE	2149	NG/G	3.7		
96903	1582-09-8	TRIFLURALIN	2339	NG/G	0.20		

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VMV CODE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
96904	2303-16-4	DIALLATE	2339	NG/G	4.0		
96905	2303-17-5	TRIALLATE	2339	NG/G	0.20		
96906	1912-24-9	ATRAZINE	2339	NG/G	15.0		
96907	101-27-9	BARBAN	2339	NG/G	4.0		
96908	40843-25-2	HOEGRASS	2339	NG/G	1.50		
96909	22212-55-1	BENZOYLPROP-ETHYL	2339	NG/G	1.00		
96910	51218-45-2	METOLACHLOR	2339	NG/G	25.0		
96911	118-74-1	HEXACHLOROBENZENE	2339	NG/G	20		
96912	319-84-6	ALPHA-BENZENEHEXACHLORIDE	2339	NG/G	0.40		
96913	58-89-9	GAMMA-BENZENEHEXACHLORIDE	2339	NG/G	0.40		
96914	76-44-8	HEPTACHLOR	2339	NG/G	0.40		
96915	309-00-2	ALDRIN	2339	NG/G	0.60		
96916	1024-57-3	HEPTACHLOR EPOXIDE	2339	NG/G	0.10		
96917	5103-74-2	GAMMA-CHLORDANE	2339	NG/G	0.20		
96918	5103-71-9	ALPHA-CHLORDANE	2339	NG/G	0.20		
96919	959-98-8	ALPHA-ENDOSULFAN	2339	NG/G	0.15		
96920	72-55-9	P,P'-DDE	2339	NG/G	0.50		
96921	60-57-1	DIELDRIN	2339	NG/G	0.20		
96922	72-20-8	ENDRIN	2339	NG/G	0.25		
96923	72-20-8	ENDRIN	2339	NG/G	0.65		
96924	72-54-8	P,P'-DDD	2339	NG/G	1.0		
96925	50-29-3	P,P'-DDT	2339	NG/G	1.25		
96926	33213-65-9	BETA-ENDOSULFAN	2339	NG/G	0.65		
96927	2385-85-5	MIREX	2339	NG/G	0.30		
96928	72-43-5	METHOXYCHLOR	2339	NG/G	2.50		
96929	1336-36-3	POLYCHLORINATED BIPHENYLS	2339	NG/G	10.0		
96941	1918-00-9	DICAMBA	2343	NG/L	0.3		
96942	94-74-6	MCPA	2343	NG/L	0.3		
96943	120-36-5	DICHLORPROP	2343	NG/L	0.3		
96944	50-31-7	2,3,6-TBA	2343	NG/L	0.4		
96945	94-75-7	2,4-D	2343	NG/L	0.4		
96946	1689-84-5	BROMOXYNIL	2343	NG/L	0.3		
96947	93-72-1	FENOPROP	2343	NG/L	0.3		
96948	93-76-5	2,4,5-T	2343	NG/L	0.4		
96949	94-81-5	MCPB	2343	NG/L	0.4		
96950	1918-02-1	PICLORAM	2343	NG/L	0.5		
96951	94-82-6	2,4-DB	2343	NG/L	0.4		
97001	DEPTH	WATER DEPTH	2176	M			99999.9
97002	AVG_DEPTH	AVERAGE WATER DEPTH AT SAMPLING STATION	2176	M			99999.9
97010	DIST_REF_STN	DISTANCE FROM REF. STATION (DOWNSTREAM)	2178	MI			10000
97011	DIST_REF_STN	DISTANCE FROM REF. STATION (DOWNSTREAM)	2178	KM			20000
97020	WATER_TAB_DEPTH	WATER TABLE DEPTH	2180	M			
97050	WIND_VEL	WIND VELOCITY	2181	KM/HR			
97060	TEMP_AIR	TEMPERATURE AIR	2182	DEG C			
97065	TEMP_SNOW	TEMPERATURE SNOW	2183	DEG C			
97070	COLOR_SMPL	COLOUR (VISUAL) IN SAMPLE	2184	DESCR CODE			
97071	COLOR_SITE	COLOUR (VISUAL) AT SITE	2356	DESCR CODE			
97072	COLOR_SED	COLOUR (BASIC) OF SEDIMENT	2186	DESCR CODE			9
97073	COLOR_MODIF	COLOUR MODIFIER	2187	DESCR CODE			9
97080	TURBID_SMPL	TURBIDITY (VISUAL) IN SAMPLE	2188	DESCR CODE			
97081	TURBID_SITE	TURBIDITY (VISUAL) AT SITE	2356	DESCR CODE			
97090	ODOUR_SMPL	ODOUR APPARENT IN SAMPLE	2190	DESCR CODE			
97091	ODOUR_SITE	ODOUR APPARENT AT SITE	21	DESCR CODE			
97160	DISCHARGE_INSTANT	DISCHARGE INSTANT	2192	M3/S			9999.99
97161	DISCHARGE_INSTANT	DISCHARGE INSTANT	2193	CFS			9999.99
97162	H2O_CONSUMP	WATER CONSMPTN. DAILY	2365	1000 GAL/D			1000
97163	DISCHARGE_DAY_MEAN	DISCHARGE DAILY MEAN	2194	CFS			999999
97164	DISCHARGE_INSTANT	DISCHARGE INSTANT	2193	CFS			9999.99
97165	DISCHARGE	DISCHARGE DAILY PER AREA	2196	L/HA/DAY			999999
97166	DISCHARGE_DAY_MEAN	DISCHARGE DAILY MEAN	2194	CFS			999999
97167	DISCHARGE_DAY_MEAN	DISCHARGE DAILY MEAN	2198	M3/S			9999.99
97168	DISCHARGE_DAY_MEAN	DISCHARGE DAILY MEAN	2199	DM3/S			
97170	DISCHARGE_YR_MEAN	ANNUAL MEAN DISCHARGE	2200	M3/S			
97172	MAX_DAY_DISCHARGE_YR	MAXIMUM DAILY DISCHARGE FOR YEAR	2201	M3/S			
97174	MIN_DAY_DISCHARGE_YR	MINIMUM DAILY DISCHARGE FOR YEAR	2202	M3/S			
97181	DISCHARGE_MO_MEAN_PR	DISCHARGE MONTHLY MEAN PROVISION	2203	CFS			999999
97183	DISCHARGE_MO_MEAN	DISCHARGE MONTHLY MEAN	2204	CFS			999999
97184	DISCHARGE_MO_MEAN	DISCHARGE MONTHLY MEAN	2205	M3/S			9999.99
97190	DISCHARGE_TILE_DRAIN	DISCHARGE TILE DRAINAGE	2206	L/S			9999.99
97201	DIST_LEFT_BANK	SAMPLING DISTANCE FROM LEFT BANK	2207	FT			20000
97202	DIST_LEFT_BANK	SAMPLING DISTANCE FROM LEFT BANK	2208	M			10000
97203	DIST_LEFT_BANK	SAMPLING DISTANCE FROM LEFT BANK	2209	%			
97205	DIST_RIGHT_BANK	SAMPLING DISTANCE FROM RIGHT BANK	2210	FT			20000
97206	DIST_RIGHT_BANK	SAMPLING DISTANCE FROM RIGHT BANK	2211	M			5000
97240	SED_SMPL_METH	SEDIMENT SAMPLING METHOD	2212	DESCR CODE			100
97242	DEPTH_SED_SMPL	SEDIMENT SAMPLE DEPTH	2213	CM			100
97251	DEPTH_SMPL_SURF	DEPTH OF SAMPLING FROM SURFACE	2214	M			10000

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VMV CODE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
97252	DEPTH_SMPL_SURF	DEPTH OF SAMPLING FROM SURFACE	2215	FT			1000
97261	DEPTH_SMPL_BOTTOM	DEPTH OF SAMPLING FROM BOTTOM	2216	M			10000
97265	DEPTH_SMPL_%TOT	SAMPLING DEPTH PERCENT OF TOTAL DEPTH	2217	%			100
97270	LAKE_LAYER	LAKE LAYER	2218	DESCR CODE			
97271	LAYER_TOP	LAYER TOP DEPTH	2219	M			10000
97272	LAYER_BOTTOM	LAYER BOTTOM DEPTH	2220	M			10000
97280	SED_SIZE_GRAVEL	SEDIMENT SIZE GRAVEL	2221	%			
97281	SED_SIZE_SAND	SEDIMENT SIZE SAND	2222	%			
97282	SED_SIZE_SILT	SEDIMENT SIZE SILT	2223	%			
97283	SED_SIZE_CLAY	SEDIMENT SIZE CLAY	2224	%			
97290	CONC_SUS_SED	CONCENTRATION SUSPENDED SEDIMENT	2225	MG/L			
97301	ICE_COVER	ICE COVER	2226	%			100
97305	ICE_THICK	ICE THICKNESS	2227	M			
97311	SNOW_COVER	SNOW COVER	2228	%			100
97312	SNOW_LAYER_TOP	SNOW LAYER TOP	2229	CM			200
97313	SNOW_LAYER_BOTTOM	SNOW LAYER BOTTOM	2230	CM			200
97315	SNOW_DEPTH	SNOW DEPTH	2231	M			
97316	SNOW_TYPE	SNOW TYPE	2232	DESCR CODE			
97317	SNOW_DENS	SNOW DENSITY	2233	G/CM3			1
97320	CLOUD_COVER	CLOUD COVER	2234	%			
97325	SOLAR_RAD	NET SOLAR RADIATION (RF4)	2235	MEGAJ/M2			
97350	PRECIP	PRECIPITATION	2236	CM			100
97351	SMPL_VOL	SAMPLE VOLUME	2237	ML			
97352	SMPL_DURAT	SAMPLING DURATION	2238	DAYS			1000
97353	SMPL_PERIOD_COMP	SAMPLING PERIOD COMPOSITE	2239	DAYS			1000
97354	COMP_SMPL	COMPOSITE SAMPLE	2240	DESCR CODE			
97355	PRECIP_CATCH	PRECIPITATION CATCH	2241	%			
97356	PRECIP_RECOV	PRECIPITATION RECOVERY (CALCD.)	2242	%			
97357	SMPL_DURAT_SEQ	SAMPLING DURATION SEQUENTIAL	2243	MIN			
97360	RAIN_RECENT	RAINFALL RECENT	2244	MM			
97361	RAIN_START_DATE	RAIN START DATE	2245	DDMMYY			
97362	RAIN_END_DATE	RAIN END DATE	2246	DDMMYY			
97363	RAIN_END_TIME	RAIN END TIME	2247	HR			
97365	PRECIP_TYPE	PRECIPITATION TYPE	2248	DESCR CODE			
97366	PRECIP_SAMPLER_TYPE	PRECIPITATION SAMPLER TYPE	2249	DESCR CODE			
97370	SMPL_RECEIVED	SAMPLE RECEIVED AT LABORATORY	2250	DDMMYY			
97371	SMPL_WEIGHT	SAMPLE WEIGHT AT LABORATORY	2251	G			
97372	SMPL_TEMP	SAMPLE TEMPERATURE AT LABORATORY	2252	DEG C			
97373	EMPTY_BAG_WEIGHT	EMPTY WEIGHT AT LABORATORY	2253	G			
97400	MOISTURE	MOISTURE SEDIMENT	2254	%	0.5		
97900	WSC_STATN	WSC REFERENCE STATION	2255	NO UNITS			
97902	COND-SAMPLING	CONDITION OF SAMPLING	2337	DESCR CODE 1			1099
97903	COND-SAMPLING	CONDITION OF SAMPLING	2338	DESCR CODE 1			999999
97910	REF_NUMB	REFERENCE NUMBER	2256	NO UNITS			
97950	WATERSHED	WATERSHED AREA	2257	KM2			9999.99
98001	BAR_PRESS	BAROMETRIC PRESSURE	2258	KPA			1000
98002	BAR_PRESS	BAROMETRIC PRESSURE	2259	KPA			
98005	ALPHA_RAD_TOT	ALPHA RADIATION TOTAL	2260	BQ/L			10
98010	BETA_RAD_TOT	BETA RADIATION TOTAL	2261	BQ/L			10
98021	COLLECT_METH	COLLECTION METHOD	2262	DESCR CODE			
98023	SAMPLER	SAMPLER AREA	2263	CM2			20000
98025	SMPL_CONTAINER	SAMPLE CONTAINER	2264	DESCR CODE			
98028	SAMPLER_HEIGHT	SAMPLER HEIGHT	2265	M			1000
98030	ALGAE_SAMPLE	ALGAE PRESENCE IN SAMPLE	2266	DESCR CODE			
98031	ALGAE_SITE	ALGAE PRESENCE AT SITE	2266	DESCR CODE			
98035	WEED_SITE	WEEDS PRESENCE AT SITE	2268	DESCR CODE			
98040	FLOAT_MATL_SMPL	FLOATING MATERIAL IN SAMPLE	2269	DESCR CODE			
98041	FLOAT_MATL_SITE	FLOATING MATERIAL AT SITE	2269	DESCR CODE			
98070	WEED_LOCTN	WEED LOCATION	2271	DESCR CODE			
98080	BOTTOM_CONDTN	BOTTOM CONDITION	2272	DESCR CODE			
98090	AMBIENT_CONDTN	AMBIENT CONDITIONS	2273	DESCR CODE			
99001	SED_SMPLR	SEDIMENT SAMPLER	2274	DESCR CODE			9
99003	SED_SMPLR_THICKNESS	THICKNESS OF SEDIMENT SAMPLER	2275	CM			1500
99005	SMPL_PHOTO	SAMPLE PHOTO	2276	DESCR CODE			1
99007	SMPL_ARCHV	ARCHIVE SAMPLE	2277	DESCR CODE			1
99009	SMPL_SED_UNITNO	UNIT NUMBER OF SEDIMENT SAMPLE OR CORE	2278	DESCR CODE			
99011	UNIT_TOP	TOP OF UNIT	2279	CM			
99013	UNIT_BOTTOM	BOTTOM OF UNIT	2280	CM			100
99015	SED_ODOUR	ODOUR OF SEDIMENT	2281	DESCR CODE			9
99017	SED_CONSISTENCY	CONSISTENCY OF SEDIMENT	2282	DESCR CODE			9
99019	SED_STRUC	SEDIMENTARY STRUCTURE	2283	DESCR CODE			9
99021	SED_TEXTR	BASIC SEDIMENT TEXTURE	2284	DESCR CODE			9
99023	TEXTR_MODFR	TEXTURAL MODIFIER	2285	DESCR CODE			9
99025	PEBBLE_TYPE	PEBBLE TYPE	2286	DESCR CODE			9
99027	SED_SUBSTR	SEDIMENT SUBSTRATE	2287	DESCR CODE			9
99029	SUBSMPL_TOP	SUBSAMPLE ANALYSED TOP	2288	CM			1500
99031	SUBSMPL_BOTTOM	SUBSAMPLE ANALYSED BOTTOM	2289	CM			1500

ENVIRODAT/NAQUADAT VALID-METHOD-VARIABLE(VMV) CODES BY VMV CODE

VMV CODE	VARIABLE CODE	VARIABLE NAME (FROM VARIABLES TABLE)	METHOD CODE	UNIT CODE	METHOD DETECTION LIMIT	INSTRUMENT DETECTION LIMIT	UPPER LIMIT
99033	GRAIN_SIZE	MEAN GRAIN SIZE	2290	PHI UNITS			12
99035	SORTING	SORTING	2291	PHI UNITS			5
99037	SKEWNESS	SKEWNESS	2292	PHI UNITS			1
99039	KURTOSIS	KURTOSIS	2293	PHI UNITS			20
99501	FISH_LEN	FISH LENGTH	2294	CM			
99502	FISH_WT	FISH WEIGHT	2295	G			
99503	FISH_AGE	FISH AGE	2296	YR			
99504	FISH_INORG_SMPLWT	FISH INORGANIC SAMPLE WEIGHT	2297	G			
99505	FISH_ORG_SMPLWT	FISH ORGANIC SAMPLE WEIGHT	2298	G			
99506	FISH_%FAT	FISH PERCENTAGE FAT	2299	%			
99507	BA_EXTR	BARIUM EXTRACTABLE	2346	MG/KG	0.01		
99508	MO_EXTR	MOLYBDENUM EXTRACTABLE	2346	MG/KG	0.02		
99509	V_EXTR	VANADIUM EXTRACTABLE	2346	MG/KG	0.01		
99510	FE_EXTR	IRON EXTRACTABLE	2346	MG/KG	0.02		
99511	BE_EXTR	BERYLLIUM EXTRACTABLE	2346	MG/KG	0.004		
99512	108-88-3	TOLUENE	2352	UG/KG	10		
99513	100-41-4	ETHYL BENZENE	2352	UG/KG	10		
99514	95-47-6	O-XYLENE	2352	UG/KG	10		
99515	108-38-3	M-XYLENE	2352	UG/KG	10		
99516	106-42-3	P-XYLENE	2352	UG/KG	10		

2792 records selected.

METHOD CODES AND DESCRIPTIONS

ENVIRODAT/NAQUADAT METHOD CODES AND DESCRIPTIONS

METHOD CODE	DESCRIPTION
1	THE BALANCE DIFFERENCE IS CALCULATED BY THE FOLLOWING FORMULA DIF = (SC-SA)/(SC+SA)*100 (IN %) WHERE SC = CA + MG + NA + K + AL + CU + FE + MN + ZN AND SA = CO3 + HCO3 + SO4 + CL + F + NO3 + NO2 + OH (EACH ION IS IN EPM UNITS) . NOTE. THE FOLLOWING IONS ARE CALCULATED FROM OTHER PARAMETERS 0
4	PARAMETER CODE USED FOR QUALITY CONTROL PROGRAM. REQ'D BY: DATA MANAGEMENT SECTION, CCIW, APRIL 1978.
6	VOLUME OF SAMPLE IS MEASURED BY GRADUATED CYLINDER. REQUIRED BY NWQL, AUGUST 1988
7	PARAMETER CODE USED FOR GEMS-GLOWDAT PROJECT TO INDICATE SAMPLING METHOD 1 - VERTICAL INTEGRATION 2 - HORIZONTAL INTEGRATION 3 - TIME INTEGRATION 4 - FLOW INTEGRATION REQ'D BY: DATA MANAGEMENT SECTION, CCIW, APRIL 1978. TOTAL DISSOLVED SOLIDS (CALCD.) MG/L
8	TOTAL DISSOLVED SOLIDS, SM, IS GIVEN BY SM = NA + K + 0.393*CA + 0.243*TH + SI + SO4 + CL + 0.6*TA IF TH IS NOT PRESENT, THEN SM IS GIVEN BY SM = NA + K + CA + MG + SI + SO4 + CL + 0.6*TA IF ANY OTHER PARAMETER IS MISSING, THEN SM IS NOT CALCULATED BY THIS METHOD.
9	TOTAL DISSOLVED SOLIDS, SM, IS GIVEN BY SM = NA + K + CA + MG + SI + SO4 + CL + F + 0.6TA + 4.43(NO3 & NO2) IF ANY PARAMETER IS MISSING SM IS NOT CALCULATED BY THIS METHOD.
10	TOTAL DISSOLVED SOLIDS, SM, IS GIVEN BY SM = NA + K + 0.393*CA + 0.243*TH + SO4 + CL + 0.6*TA IF TH IS NOT PRESENT, THEN SM IS GIVEN BY SM = NA + K + CA + MG + SO4 + CL + 0.6*TA IF ANY OTHER PARAMETER IS MISSING, SM IS NOT CALCD. BY THIS METHOD. THE FACTOR 0.6*(TOTAL ALKALINITY) REPRESENTS THE CONVERSION OF BICARBONATE TO CARBONATE ON EVAPORATION. TDS CALCULATED BY THIS PROCEDURE IS COMPARABLE TO FILTERABLE RESIDUE.
11	TOTAL DISSOLVED SOLIDS, SM, IS GIVEN BY SM = A + 4.425*(NO3 + NO2) + F + 3.067*PO4 + CU + ZN + FE + MN WHERE A IS PARAMETER 00201L. IF A CANNOT BE FOUND SM IS NOT CALCD. IF ANY OTHER PARAMETERS ARE MISSING THE CALCN. IS MADE WITH THOSE PARAMETERS, WHICH ARE PRESENT.
12	TOTAL DISSOLVED SOLIDS, SM, IS GIVEN BY SM = A + 4.425*(NO3 + NO2) WHERE A IS PARAMETER 00203L. IF A CANNOT BE CALCULATED, SM CANNOT BE CALCULATED. IF NO3+NO2 IS NOT PRESENT, SM CANNOT BE CALCULATED.
13	SUMMATION OF IONS. CL + SO4 +CA + MG + K + NA + FE + MN + NO3 + HCO3 = TDS CALCULATION. REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
14	PARAMETER IS CALCULATED FROM THE ANALYSED TOTAL SOLIDS AND TOTAL SUSPENDED SOLIDS. THESE METHODS ARE SIMILAR TO NAQUADAT 10471 AND 10401 RESPECTIVELY. SM= ANALYSED TOTAL SOLIDS + TOTAL SUSPENDED SOLIDS.
15	SATN. INDEX, SA, IS GIVEN BY SA = PH - K WHERE K = PK2 - PKS -LOG(CA) - LOG(ALK) + 9.3 + 2.5*SQRT(U)/(1 + 5.3*SQRT(U) + 5.5*U), PK2 = 2902.4/(T + 273.2) - 6.498 + 0.02379*(T + 273.2) PKS = 8.37 - 1660/(T + 273.2) + 5.56 U = 0.000025*SM SM IS TOTAL DISSOLVED SOLIDS, T IS TEMP. IN DEG.C. IF ANY OF THE

ENVIRODAT/NAQUADAT METHOD CODES AND DESCRIPTIONS

METHOD CODE	DESCRIPTION
15	PARAMETERS IS MISSING OR CANNOT BE CLCD. THEN SA IS NOT CALCD.
16	STABILITY INDEX, SB, IS GIVEN BY SB = 2*K - PH WHERE K = PK2 - PKS - LOG(CA) - LOG(ALK) + 9.3 + 2.5*SQRT(U)/(1 + 5.3*SQRT(U) + 5.5*U), PK2 = 2902.4/(T + 273.2) - 6.498 + 0.02379*(T + 273.2) PKS = 8.37 - 1660/(T + 273.2) + 5.56 U = 0.000025*SM SM IS TOTAL DISSOLVED SOLIDS, T IS TEMP. IN DEG.C.. IF ANY OF THE PARAMETERS IS MISSING OR CANNOT BE CALCD. THEN THIS SB IS NOT CALCD.
17	THE SUM OF MAJOR IONS (DISSOLVED) IS GIVEN BY NA + K + 0.393*CA + 0.243TH + SO4 +CL + 1.219*TA IF TH IS NOT PRESENT, THEN SUM IS GIVEN BY NA + K + CA + MG + SO4 + CL + 1.219*TA IF ANY OTHER PARAMETER IS MISSING, THE CALCULATION IS NOT PERFORMED. THE FACTOR, 1.219*(TOTAL ALKALINITY), ASSUMES THE COMMON CONDITION IN WHICH THE PHENOLPHTHALEIN ALKALINITY = 0 AND THE TOTAL ALKALINITY IS DUE TO HCO3 IONS. REQ'D BY: WQB, OTTAWA, DEC. 1978.
18	ALKA - SELTZER TABLET IN SOLUTION WITH LEAD ACETATE INDICATOR PAPER IN THE CAP. SHAKEN TO EVOLVE GAS AND THE COLOR IS COMPARED WITH STANDARDS TO DETERMINE THE CONCENTRATION. REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
19	METHOD REQ'D BY WQB, OTTAWA, OCT. 1979.
20	ALL SAMPLES COLLECTED ARE ACIDIFIED TO 0.2N WITH CONCENTRATED HYDROCHLORIC ACID AS A PRESERVATIVE. FOR TRITIUM (3H) DETERMINATION FROM FRESHLY-COLLECTED SAMPLES, AN EIGHT ML ALIQUOT IS COMBINED WITH 27 ML PCS, A LIQUID SCINTILLATION COCKTAIL, IN A POLYETHYLENE VIAL AND MIXED RAPIDLY TO FORM A UNIFORM GEL. THIS IS THEN COUNTED ON A SEARL MARK II LIQUID SCINTILLATION COUNTER FOR 200 MINUTES WITH THE OUTPUT DISCRIMINATORS SET TO ACCEPT ONLY THE LOW-ENERGY TRITIUM BETA-PARTICLE PULSES. A NEAR-ZERO LEVEL SAMPLE IS USED FOR BACKGROUND. EFFICIENCY OF THE COUNTER IS CALCULATED BY COUNTING STANDARD SOLUTIONS IN THE SAME MANNER. REQ'D BY: NWRI, BURLINGTON, FEBRUARY 1982
21	DILUTION AND COMPARISON WITH ODOUR FREE WATER *FOR 97091, PERTAINS TO THE PHYSICAL DESCRIPTION OF EFFLUENT OR WATER BODY. REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY 1977.
24	VISUAL COMPARISON. AN ALIQUOT OF THE CENTRIFUGED SAMPLE IN A NESSLER TUBE IS COMPARED WITH STD. COLOUR SOLNS., WHICH ARE EITHER HELLIGE AQUA TESTER COLOUR SOLNS. OR STD. SOLNS. OF CHLOROPLATINATE AND CO IONS. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974. PARAMETER 02011 / SHAKEN SAMPLE (02017). PARAMETER 02021 / CENTRIFUGED SAMPLE.
25	SPECTROSCOPIC METHOD FOR PULPMILL EFFLUENT. SAMPLES ARE DILUTED, PRE-FILTERED WITH GFD GLASS FILTERS AND 0.8 MICRON MEMBRANE FILTERS. THE PH IS ADUSTED TO 7.6 AND THE ABSORBANCE MEASURED AT 465 MILLIMICRONS. THE COLOUR IS MEASURED AGAINST A PLATINUM-COBALT STANDARD AND THE RESULTS ARE REPORTED RELATIVE TO THE HAZEN COLOUR SCALE. REQ'D BY: ALBERTA ENVIRONMENTAL CENTRE, JUNE, 1984.
26	SPECTROPHOTOMETRY ON FILTERED SAMPLES USING A 425 MU FILTER. REQ'D BY: FWI/ELA FIELD LAB, AUGUST 1984.
27	KLETT-SOMERSON SPECTOPHOTOMETRIC METHOD. AN ALIQUOT OF SAMPLE IS FILTERED THROUGH A 0.8 MICRON NYLON MEMBRANE FILTE AND THE COLOUR IS DETERMINED ON A KLETT-SOMERSON SPECTOPHOTOMETER EQUIPPED WITH A WIDE-BAND NO. 42 RATTEN FILTER (400-450 NM) AND COMPARED AGAINST STD. SOLNS. OF CHLOROPLATINATE AND COBALT IONS. REQ'D BY: ALBERTA ENVIRONMENTAL CENTRE, FEBRUARY, 1986.

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METHOD CODE	DESCRIPTION
28	COLOURIMETRY ON AUTOANALYZER. THE PH IS NOT MODIFIED. WAVE LENGTH 400 NM. REF: ENVIRONMENT QUEBEC, BQMA CODE 020647 REQ"D: WQB, OTTAWA (FOR LRTAP DATA) JULY 1986
29	TRISTIMULUS FILTER, FISHER ELECTROPHOTOMETER II, 5 CM. CELL
31	REDOX POTENTIAL MEASURED USING A CLOSED FLOW CELL WITH A PLATINUM ELECTRODE. REQ'D BY: NHRI, OTTAWA, SEPT. 1982.
32	SPECIFIC CONDUCTANCE IS MEASURED BY A CONDUCTIVITY METER WITH PT ELECTRODES, AND THEN COR. TO 25 DEG. C. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
33	SPECIFIC CONDUCTANCE IS MEASURED WITH A BATTERY OPERATED HYDROLAB MODEL TC-2 CONDUCTIVITY-TEMPERATURE METER, EMPLOYING NICKEL ELECTRODES IN THE FOUR-ELECTRODE CONFIGURATION WITH INTEGRAL TEMPERATURE SENSOR-COMPENSATOR AND INTERNAL CALIBRATION STANDARDS. THE ACCURACY IS 2.5%. REQ'D BY: WQB MONCTON, JULY 1977.
34	PARAMETER REQUIRED FOR PRECIPITATION CHEMISTRY INFORMATION REQ'D BY: DATA MANAGEMENT SECTION, CCIW, OCT. 75.
36	SPECIFIC CONDUCTANCE IS MEASURED USING A RADIOMETER CDM 83 AUTOMATIC RANGING CONDUCTIVITY METER AND A RADIOMETER TYPE CDC 334 JACKETED PLATINUM ELECTRODE. A ONE-GALLON WATER BATH WITH A HAAKE MODEL E52 TEMPERATURE CONTROLLER/CIRCULATING PUMP ACCURATELY MAINTAINS THE BATH TEMPERATURE AT 25 I 0.1 C AND CONTINUALLY CIRCULATES WATER THROUGH THE CELL JACKET. THE SAMPLE IS DRAWN INTO THE CONDUCTIVITY CELL VIA VACUUM AND SPECIFIC CONDUCTIVITY IS READ DIRECTLY FROM THE METER AFTER A FIFTEEN SECOND TEMPERATURE STABILIZATION PERIOD. REQUIRED BY: ALBERTA ENVIRONMENTAL CENTRE, ALBERTA ENVIRONMENT. MARCH, 1984.
37	SPECIFIC CONDUCTANCE IS MEASURED BY A CONDUCTIVITY METER WITH PT ELECTRODES AT THE SAMPLE TEMPERATURE (UNCORRECTED). NOTE: CODE REQUESTED BY WQB, MONCTON, SEPT. 1975.
38	WATER TEMP. IS MEASURED BY A HG-FILLED THERMOMETER.
39	WATER TEMP. IS MEASURED WITH A BATTERY-OPERATED YSI THERMISTOR CALIBRATED AGAINST A HG THERMOMETER. PRECISION IS 0.1 DEG.C. AND ACCURACY IS 0.2 DEG.C. NOTE: CODE NO. REQUESTED BY FRESHWATER INST., WINNIPEG.
40	THE WATER TEMPERATURE IN DEGREES CENTIGRADE, TAKEN DURING A DISSOLVED OXYGEN STRATIFICATION . REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
42	WATER TEMPERATURE IS MEASURED WITH A BATTERY OPERATED HYDROLAB MODEL TC-2 CONDUCTIVITY-TEMPERATURE METER CALIBRATED BY SWITCHING TO AN INTERNAL STANDARD. THE ACCURACY IS 0.5 DEG.C REQ'D BY: WQB, MONCTON, JULY 1977.
43	WATER TEMPERATURE MEASURED WITH AN ELECTRONIC BATHYTHERMOGRAPH. THE CORRESPONDING STAR CODE IS 104. REQ'D BY: DATA MANAGEMENT, CCIW, MARCH 1983.
44	TURBIDITY MEASUREMENTS ARE BASED ON THE LIGHT PATH THROUGH A SUSPENSION WHICH JUST CAUSES THE IMAGE OF THE FLAME OF A STANDARD CANDLE TO DISAPPEAR.
45	HELLIGE TURBIDIMETER.MEASUREMENTS BASED ON THE AMOUNT OF LIGHT ABSORBED BY PARTICLES.
46	PHOTOMETRY ON A HACH TURBIDIMETER. A LIGHT BEAM IS PASSED THROUGH THE SHAKEN SAMPLE. THE LIGHT SCATTERED AT 90 DEG. TO THE BEAM-AXIS IS MEASURED BY PHOTOELECTRIC CELLS. THE INSTRUMENT IS CALIBRATED WITH STD. HYDRAZINE SULPHATE ($N_2H_4 \cdot H_2SO_4$)-HEXAMETHYLENETETRAMINE SOLNS., AND STANDARDIZED WITH A POLYACRYLIC PLASTIC ROD CONTG. SPECIAL TURBIDITY MATERIAL. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.

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METHOD CODE DESCRIPTION

47 NEPHELOMETRIC METHOD USING A HACH TURBIDIMETER, UNITS NTU
STD. 214A.
REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.

48 DEPTH AT WHICH A 25 CM DIAM. DISC, PAINTED IN BLACK AND WHITE QUADRANTS IS NOT LONGER VISIBLE. IN TURBID WATERS THE PRECISION IS 1 CM AND IN CLEAR WATERS 10 CM
NOTE: CODE NO. REQUESTED BY FRESHWATER INST., WINNIPEG.

49 DEPTH AT WICH A 30 CM DIAM. DISC, PAINTED BLACK AND WHITE QUADRANTS IS NO LONGER VISIBLE.
NOTE: METHOD USED AT CCIW TO ANALYSE GREAT LAKES SAMPLES. IT CORRESPONDS TO STAR CODE NO. 030.

51 A 20 CM BLACK AND WHITE METAL DISK (SECCHI-DISK) IS LOWERED THROUGH THE WATER COLUMN ON THE SHADED SIDE OF THE BOAT THE DEPTH AT WHICH THE DISK IS OBSERVED TO DISSAPPEAR IS NOTED, AND NOTED AGAIN AT THE DEPTH AT WHICH IT REAPPEARS WHEN PULLED UP. THE AVERAGE OF THESE TWO VALUES IS THE FINAL TRANSPARENCY VALUE.
REF: LIND, OWEN T. 1974. HANDBOOK OF COMMON METHODS IN LIMNOLOGY. C.V. MOSBY CO. ST. LOUIS.
REQ'D BY: ALBERTA, ENVIRONMENT, DEC. 1980.

52 DOWNWELLING ILLUMINANCE WAS MEASURED AT 1 METER INTERVALS WITH A PROTOMATIC UNDERWATER PHOTOMETER CALIBRATED TO READ IN FOOT CANDLES.
REF: RICH.P.R. AND R.G. WETZEL. A SIMPLE SENSITIVE UNDERWATER PHOTOMETER. LIMNOLOGY AND OCEANOGRAPHY 14 611-613.
REQ'D BY: ALBERTA ENVIRONMENT, DEC. 1980.

53 LIGHT INTENSITY IS MEASURED UNDERWATER USING A PHOTOMETER, (LI-COR MODEL LI-185A). INTENSITY IS MEASURED AT VARYING DEPTHS AND THE VERTICAL EXTINCTION COEFFICIENT IS RECORDED.
REQ'D BY: WATER PLANNING AND MGT, ONTARIO, JULY 1984.

54 NEPHELOMETRY ON A HACH RATIO TURBIDIMETER MODEL 18900. LIGHT BEAM PASSED THROUGH SHAKEN SAMPLE. LIGHT SCATTERED MEASURED AT 90 DEG. ADDITIONAL DETECTORS CORRECT FOR FORWARD-SCATTERED LIGHT AND LIGHT TRANSMITTED THROUGH SAMPLE. STANDARDIZATION USING FORMAZIN STANDARDS.

55 METHOD REQ'D BY WQB, OTTAWA, OCT. 1979.
TEMPERATUREIN SEDIMENT DEG. C.

56 MERCURY LABORATORY THERMOMETER INSERTED AT LEAST 2 CM BELOW SEDIMENT SURFACE.

57 COMBINATION PLATINUM ELECTRODE CALIBRATED BY THE ZOBELL SOLUTION, INSERTED AT LEAST 2 CM BELOW THE SEDIMENT SURFACE, AND LEFT UNTIL STABLE READINGS OBTAINED.
REF.@ KEMP, A.L.W. AND C.F.M. LEWIS 1968. A PRELIMINARY INVESTIGATION OF CHLOROPHYLL DEGRADATION PRODUCTS IN THE SEDIMENTS OF LAKES ERIE AND ONTARIO. PROCEEDINGS, 11TH CONF. GREAT LAKES RESEARCH, IAGLR, P.206-229.

58 ATOMIC ABSORPTION BY DIRECT ASPIRATION. THE SAMPLE AND A MIXTURE OF HNO3, HCLO4, AND HF ARE PLACED IN A PARR 4745 ACID DIGESTION BOMB. THE BOMB IS SEALED AND HEATED FOR 3.5 HRS AT 140 DEG. C TO DECOMPOSE THE SAMPLE. THE SAMPLE IS THEN MECHANICALLY SHAKEN IN A SOLUTION OF H3BO3 AND DEIONIZED WATER UNTIL ALL MATERIAL DISSOLVES. THE ABSORBANCE IS MEASURED SPECTROPHOTOMETRICALLY AND COMPARED WITH THOSE OF IDENTICALLY PREPARED STDS. AN ACETYLENE-AIR OXYDIZING FLAME IS USED.
FOR DISSOLVED, THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER.
FOR EXTRACTABLE, THE SAMPLE IS ACIDIFIED WITH DIL. MINERAL ACIDS, SHAKEN AND LEFT OVERNIGHT.
LITHIUM : WAVE LENGTH= 670.8 MU.
SODIUM : WAVE LENGTH= 589.0 - 589.6 MU.
MAGNESIUM: AN ACETYLENE-NITROUS OXIDING FLAME IS USED, WAVE LENGTH= 285.2 MU.
ALUMINIUM: AN ACETYLENE-NITROUS OXIDE REDUCING FLAME IS USED, WAVE LENGTH= 309.3 MU.
SILICON : AN ACETYLENE-NITROUS OXIDE REDUCING FLAME IS USED, WAVE LENGTH= 251.6 MU.
POTASSIUM: WAVE LENGTH= 766.5 MU.
CALCIUM : AN ACETYLENE-NITROUS OXIDE REDUCING FLAME IS USED,

ENVIRODAT/NAQUADAT METHOD CODES AND DESCRIPTIONS

METHOD CODE	DESCRIPTION
58	WAVE LENGTH= 422.7 MU. VANADIUM : AN ACETYLENE-NITROUS FLAME IS USED, WAVE LENGTH= 318.4 MU. CHROMIUM : WAVE LENGTH= 357.9 MU. MANGANESE: WAVE LENGTH= 279.5 MU. IRON : WAVE LENGTH= 248.3 MU. COBALT : WAVE LENGTH= 240.7 MU. NICKEL : WAVE LENGTH= 232.0 MU. COPPER : WAVE LENGTH= 324.7 MU. ZINC : WAVE LENGTH= 213.9 MU. STRONTIUM: AN ACETYLENE-NITROUS OXIDE REDUCING FLAME IS USED, WAVE LENGTH= 460.7 MU. MOLYBDENUM:AN ACETYLENE-NITROUS OXIDE REDUCING FLAME IS USED, WAVE LENGTH= 313.3 MU. CADMIUM : WAVE LENGTH= 228.8 MU. BARIUM : AN ACETYLENE-NITROUS OXIDIZING FLAME IS USED, WAVE LENGTH= 553.6 MU. LEAD : WAVE LENGTH= 283.3 MU. REF: AGEMIAN,H., CHAU,A.S.Y.,1975 "AN ATOMIC ABSORPTION METHOD FOR DETERMINATION OF 20 ELEMENTS IN LAKE SEDIMENTS AFTER ACID DIGESTION", ANAL. CHIM. ACTA 80:61. REQ'D BY: WQB BURLINGTON, ****** APPROVED WATER QUALITY BRANCH METHOD ******
59	FLAME PHOTOMETRY. NA DISSOLVED: DIRECT INTENSITY MEASUREMENT. REQ'D BY: GEMS-GLOWDAT, CCIW, SEPT. 1980.
64	ICAP METHOD. FILTERED SAMPLES ARE ASPIRATED AND THE EMISSION IS MEASURED AT THE APPROPRIATE WAVE LENGTH AND COMPARED WITH STD. SOLUTIONS. EXTRACTABLE: UF SAMPLE. LITHIUM: 670.78 U. SODIUM : 295 U AIR-C2H2 FLAME IS USED.
69	ATOMIC ABSORPTION WITH SOLVENT EXTN. SAMPLE IS DIGESTED WITH HNO3, 8-QUINOLINOL (8-HYDROXYQUINOLINE)IS ADDED AND, IF NECESSARY, THE PH IS ADJUSTED TO 7.5-8.5. THE SAMPLE IS THEN EXTD. WITH CHCL3. THE ABSORPTION OF THE EXT. AT 234.8 MU IS COMPARED WITH THAT OF AN IDENTICALLY PREPD. STD. BE SOLN. A N2O-C2H2 REDUCING FLAME IS USED. DISSOLVED : FILTERED THROUGH A 0.45 U MEMBRANE FILTER. EXTRACTABLE: ACIDIFIED WITH DILUTE MINERAL ACID, SHAKEN AND LEFT OVERNIGHT. SUSPENDED : FILTERED THROUGH A 0.4 MEMBRANE FILTER. THE FILTER CONTAINING THE RESIDUE IS DIGESTED. ALUMINIUM : A BUFFER SOLUTION (PH8) IS ADDED TO THE SOLUTION AND THE SOLUTION IS EXTRACTED TWICE WITH CHCL3. THE EXTRACTANTS ARE COMBINED. WAVE LENGTH= 309.3 MU. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
77	ATOMIC ABSORPTION BY DIRECT ASPIRATION. THE SHAKEN SAMPLE ACIDIFIED WITH DIL. MINERAL ACID IS LEFT OVERNIGHT. THE ABSORPTION OF THIS SAMPLE IS COMPARED WITH THAT OF A STD. BE SOLN. A N2O-C2H2 REDUCING FLAME IS USED. BERYLLIUM = 234.8 MU,BORON = 249.7 MU, ALUMINIUM = 309.3. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
79	ATOMIC ABSORPTION USING SOLVENT EXTRACTION. THE SAMPLE IS ACIDIFIED WITH DILUTE MINERAL ACID, SHAKEN, AND LEFT OVERNIGHT. AN ALIQUOT IS TITRATED WITH NH4OH TO THE BLUE ENDPOINT OF BROMOPHENOL BLUE, THEN BACK-TITRATED WITH H2SO4 UNTIL BLUE COLOUR DISAPPEARS. THE PH IS ADJUSTED TO 6.0+OR-0.1 WITH BUFFER. THE ALIQUOT IS EXTRACTED WITH ETHYL PROPIONATE CONTAINING 8-HYDROXYQUINOLINE, AND THE SOLVENT LAYER ASPIRATED. THE ABSORBANCE IS MEASURED AND COMPARED WITH THOSE OF IDENTICALLY PREPARED BE STANDARDS. A N2O-C2H2 REDUCING FLAME IS USED. BERYLLIUM: 234.9 MU. ALUMINIUM: 309.2 MU. REFERENCE: 1. PARKER, C.R., "WATER ANALYSIS BY ATOMIC ABSORPTION", VARIAN TECHTRON PTY LTD., SPRINGVALE, AUSTRALIA, 1974, P. 39. REFERENCE: 2. SACHDEV, S.L., WEST, P.W., ENVIR. SCI. TECH. 4, 749,1970 REQ'D BY: POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT,MARCH 1977
80	ICAP + AAS METHOD. ATOMIC ABSORPTION BY DIRECT ASPIRATION. THE SHAKEN SAMPLE ACIDIFIED WITH DILUTE MINERAL ACID IS LEFT OVERNIGHT. THE

METHOD CODE	DESCRIPTION
80	ABSORPTION OF THIS SAMPLE AT 234.8 MU IS COMPARED WITH THAT OF A STANDARD BE SOLUTION. A NO2 - C2H2 REDUCING FLAME IS USED. ICAP METHOD: FILTERED SAMPLES ARE ASPIRATED AND THE EMISSION IS MEASURED AT 234.8 MU AND COMPARED WITH STANDARD SOLUTIONS. REQUESTED BY WQNL, AUGUST 1988.
82	ATOMIC ABSORPTION BY DIRECT ASPIRATION FOLLOWING EXTRACTION BY CONCENTRATED HCL (OR AQUA REGIA) AT 90 DEG. C FOR 90 MINUTES, FILTRATION AFTER COOLING, AND DILUTION.
83	ATOMIC ABSORPTION SPECTROSCOPY. REQ'D BY: GEMS-GLOWDAT, CCIW, SEPT. 1980.
84	COLOURIMETRY. REQ'D BY: GEMS-GLOWDAT, CCIW, SEPT. 1980.
85	THE SOLUTION CONTAINING THE METAL IS PREPARED BY CONCENTRATION IN AN AQUA REGIA/PEROXIDE MEDIUM FOLLOWED BY QUANTITATION ON A DIRECT CURRENT PLASMA EMISSION SPECTROMETER. THE MDL IS DEPENDENT UPON THE CONCENTRATION FACTOR (GENERALLAY 10X). REQUESTED BY THE WASTE WATER TECHNOLOGY CENTER, INORGANIC CHEMISTRY SECTION. BURLINGTON, ONTARIO, JUNE 1988.
86	MANNITOL POTENTIOMETRIC METHOD. SAMPLE IS FILTERED THROUGH A 0.45 U MEMBRANE FILTER. IF PO4 ION CONCN. IS MORE THAN 10 MG/L. THE FILTRATE IS FREED OF IT BY PPTN. WITH PB(NO3)2, THE PB IS THEN REMOVED BY PPTN. WITH NAHCO3. HCO3 ION IS REMOVED BY ACIDIFICATION WITH H2SO4. IF HARDNESS EXCEEDS 100 MG/L OF CACO3 THE SAMPLE IS PASSED THROUGH A STRONGLY ACIDIC CATION EXCHANGE RESIN. THE PH IS THEN ADJUSTED TO 7.00. MANNITOL IS ADDED TO SAMPLE AND BLANK ALIQUOTS, WHICH ARE THEN TITRATED TO PH=7.00 WITH NAOH. A PH METER IS USED. INTEFERENCES : GE AND TETRAVALENT V. REF.: STD. METHODS FOR THE EXAMN. OF WATER AND WASTEWATER, AMERICAN PUBLIC HEALTH ASSOCN., 13TH EDITION, 1971, P. 73.
87	CURCUMIN METHOD. SAMPLE IS FILTERED THROUGH,A 0.45 MU MEMBRANE FILTER. A STD. CURCUMIN (TURMERIC YELLOW; 1,7-BIS (4-HYDROXYMETHOXY-PHENYL)-1,6-HEPTADIENE-3,5-DIONE) SOLN. IS ADDED TO ALIQUOTS OF THE FILTRATE, STD. B SOLNS. AND A BLANK WHICH ARE THEN EVAPD. THE RESIDUES ARE DISSOLVED IN 95 % ETHANOL, AND THEIR ABSORBANCES COMPARED AT 540 MU, INTERFERENCE : NO3 ION AT MORE THAN 20 MG/L NO3. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
88	AUTOMATED FLUORIMETRIC.
89	COLOURIMETRY WITH 1,1-DIANTHRIMIDE. IF TURBID, THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. CA(OH)2 SOLN. IS ADDED TO A FILTRATE ALIQUOT. THE MIXTURE IS EVAPD. TO DRYNESS, WITHOUT BAKING. THE RESIDUE IS DISSOLVED IN A SOLN. OF 1,1-DIANTHRIMIDE (1,1-IMINODIANTHRAQUINONE) IN CONCD. H2SO4. THIS SOLN. IS KEPT 3 HR AT 90 DEG.C., UNDER DRY CONDITIONS. THE OPTICAL DENSITY OF THE SOLN. IS THEN MEASURED SPECTROPHOTOMETRICALLY AT 620 MU, AND COMPARED WITH THOSE OF IDENTICALLY PREPD. STD. B SOLNS. INTERFERENCE : LARGE QUANTITIES OF NO3 ION. REF.: WATER QUALITY BRANCH, CALGARY.
90	COLOURIMETRY ON AN AUTOANALYZER WITH CARMINIC ACID. IF TURBID, THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. THE SAMPLE IS MIXED WITH A SOLN. OF CARMINIC ACID AND PHENOL IN CONCD. H2SO4. THE ABSORBANCE OF THE RESULTING COLOUR IS MEASURED SPECTROPHOTOMETRICALLY AT 600 MU, AND COMPARED WITH THOSE OF IDENTICALLY PREPD. STD. B SOLNS. REF.: STD. METHODS FOR THE EXAMN. OF WATER AND WASTEWATER, AMERICAN PUBLIC HEALTH ASSOCN., 13TH EDITION, 1971, P. 72.
91	COLOURIMETRY ON AN AUTOANALYSER WITH AZOMETHINE H. IF TURBID THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. THE SAMPLE IS MIXED WITH A SOLUTION OF AZOMETHINE H, THE RESULTING COLOUR IS MEASURED SPECTROPHOTOMETRICALLY AT 410 NM AND COMPARED WITH THOSE OF IDENTICALLY PREPARED STANDARD B SOLUTIONS. DETECTION LIMIT: 0.1MG/L.

ENVIRODAT/NAQUADAT METHOD CODES AND DESCRIPTIONS

METHOD CODE	DESCRIPTION
91	REFERENCE: 1. BASSON, W.D., BOHMER, R.G. AND STANTON, D.A., "AN AUTOMATED PROCEDURE FOR THE DETERMINATION OF BORON IN PLANT TISSUE" , ANALYST, 1969, VOL. 94, P. 1135 - 1141. REFERENCE: 2. BASSON, W.D., PILLE, P.P. AND DU PREEZ, AL.L., "AUTOMATED IN SITU PREPARATION OF AZOMETHINE H AND SUBSEQUENT DETERMINATION OF BORON IN AQUEOUS SOLUTION" , ANALYST, 1974, VOL. 99, P. 168 - 170. REQ'D BY: POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT, MARCH 1977.
95	INFRARED ANALYSIS, DUAL CHANNEL METHOD. A SMALL VOL. OF THE BLENDED SAMPLE IS INJECTED INTO A COMBUSTION TUBE AT 950 DEG.C. CONTAINING PUMICE STONE IMPREGNATED WITH COBALT OXIDE. THE RESULTING CO2 IS MEASURED BY AN IR ANALYZER AND COMPARED WITH STD. ORG. C SOLNS. TO GIVE TOTAL C. AN IDENTICAL VOL. IS INJECTED INTO A COMBUSTION TUBE AT 150 DEG.C. CONTAINING 85% H3PO4 ON QUARTZ CHIPS. THE RESULTING CO2 IS MEASURED BY AN IR ANALYZER, AND COMPARED WITH STD. INORG. C SOLNS. TO GIVE THE TOTAL INORG. C. THE TOTAL ORG. C IS FOUND BY DIFFERENCE. INTERFERENCE: LARGE PARTICLES MAY NOT BE INJECTED. FOR DISSOLVED: THE SAMPLE IS FILTERED THROUGH A 0.45 U MEMBRANE FILTER . FOR (06111) A 0.8 U MEMBRANE FILTER. REF :ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974. NOTE - A VARIABLE DETECTION LIMIT IS EMPLOYED IN THE WQB LABORATORY, PACIFIC AND YUKON REGION.
96	CALCULATED TOTAL ORGANIC CARBON. TOTAL ORGANIC CARBON = PARTICULATE ORGANIC CARBON + DISSOLVED ORGANIC CARBON.
97	INFRARED ANALYSIS, SINGLE CHANNEL METHOD. SAMPLE IS BLENDED AND ACIDIFIED TO REMOVE CO3 IONS. A SMALL VOL. IS INJECTED INTO A COMBUSTION TUBE AT 950 DEG.C. CONTG. COBALT OXIDE ON ASBESTOS. THE RESULTING CO2 IS MEASURED BY AN IR ANALYZER AND COMPARED WITH STD. ORG. C SOLNS. INTERFERENCE: LARGE PARTICLES MAY NOT BE INJECTED. FOR DISSOLVED : THE SAMPLE IS FILTERED THROUGH A 0.45 U MEMBRANE FILTER. REF.: TRAVERSY, W.J., METHODS FOR CHEM. ANAL. OF WATERS AND WASTEWATERS, WATER QUALITY DIVISION, 1971, P.18 REQ'D BY: TECHNICAL SERVICES, MANITOBA ENVIRONMENT, JAN.1976
98	IR ANALYSIS. ACIDIFIED SAMPLE IN A GLASS AMPULE IS PURGED OF INORG. C BY BUBBLING O2. K2S2O7 IS ADDED AND THE AMPULE IS SEALED WITH A MICROBURNER. THE OXIDN. IS CARRIED OUT IN A PRESSURE VESSEL AT 130 DEG.C. OR IN AN AUTOCLAVE. THE AMPULE IS TAPPED AND THE CO2 FORMED IS CARRIED THROUGH A NON-DISPERSIVE IR ANALYZER THE ORG. C IS READ DIRECTLY AS A FUNCTION OF CO2 CONCN. AND COMPARED WITH STD. ORG. C SOLNS. FOR DISSOLVED : THE SAMPLE IS FILTERED THROUGH A 0.45 U MEMBRANE FILTER. NOTE : CODE NO. REQUESTED BY WQB, MONCTON, JUNE 1974.
99	INFRARED ANALYSIS. IN AN AUTOMATED SYSTEM THE SHAKEN SAMPLE IS ACIDIFIED TO CONVERT INORGANIC CARBON TO CO2 WHICH IS STRIPPED FROM SOLUTION. THE REMAINING LIQUID PHASE IS PASSED THROUGH A UV COIL TO OXIDIZE ORGANIC CARBON COMPOUNDS. THE RESULTING CO2 IS MEASURED BY AN IR ANALYZER AND COMPARED WITH STANDARD ORGANIC CARBON SOLUTIONS. DETECTION LIMIT IS 0.1 MG/L C. FOR DISSOLVED: THE SAMPLE IS FILTERED THROUGH A 0.45 U MEMBRANE FILTER, OR 0.8 U FOR 06106-06153. REF: GOULDEN, P.D. AND PETER BROOKSBANK, AUTOMATED DETERMINATION OF DISSOLVED ORGANIC CARBON IN LAKE WATER, ANALYTICAL CHAMISTRY IN PRESS. NOTE: CODE REQUESTED BY CCIW JULY, 1975.
102	LOW LEVEL FLAME IONIZATION METHOD. BOTH THE PURGEABLE ORGANIC CARBON AND TOTAL ORGANIC CARBON CONTENT OF A WATER SAMPLE ARE MEASURED INSTRUMENTALLY BY AN AUTOMATICALLY SEQUENCED PROCESS. REMOVAL OF PURGEABLE ORGANIC CARBON BY HELIUM IS FOLLOWED BY K2S2O8 AND ULTRAVIOLET OXIDATION OF NONPURGEABLE ORGANIC CARBON. PURGEABLE AND NONPURGEABLE ORGANIC CARBON ARE CONVERTED TO METHANE BY REDUCTIVE PYROLYSIS. A FLAME IONIZATION DETECTOR IS USED TO DETERMINE THE ORGANIC CONTENT OF THE SAMPLE. REF: METHODS MANUAL, POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT, EDMONTON, 1978. NOTE: CODE REQUESTED BY POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT, SEP., 1978.

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METHOD CODE	DESCRIPTION
105	FLAME IONIZATION. A SMALL VOLUME OF BLENDED SAMPLE IS INJECTED INTO A PLATINUM BOAT CONTAINING MANGANESE OXIDE. AFTER SAMPLE VAPORIZATION THE BOAT IS ADVANCED TO PYROLYSIS ZONE AT 850C. VOLATILE ORGANIC COMPOUNDS, CO, AND CO2 THEN PASS OVER A HYDROGEN ENRICHED NICKEL CATALYST AT 350C AND ARE REDUCED TO CH4 WHICH IS MEASURED BY A FLAME IONIZATION DETECTOR. FOR TOTAL ORGANIC CARBON, THE SAMPLE IS ACIDIFIED PRIOR TO THE ANALYSIS. REF: METHODS MANUAL, POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT, EDMONTON, 1978. NOTE: CODE REQUESTED BY POLLUTION CONTROL LABORATORY ALBERTA ENVIRONMENT, SEP., 1978.
109	FLAME IONIZATION. A VOLUME OF HOMOGENIZED SAMPLE IS INJECTED INTO A PLATINUM BOAT CONTAINING MANGANESE OXIDE. AFTER SAMPLE VAPORIZATION THE BOAT IS ADVANCED TO PYROLYSIS ZONE AT 850C. VOLATILE ORGANIC COMPOUNDS, CO, AND CO2 THEN PASS OVER A HYDROGEN ENRICHED NICKEL CATALYST AT 350C AND ARE REDUCED TO CH4 WHICH IS MEASURED BY A FLAME IONIZATION DETECTOR. DETECTION LIMIT IS 5 MG/L IN SOLUTION OR 5000 MG/KG IN SEDIMENT. REF: METHODS MANUAL, POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT, EDMONTON, 1978. NOTE: CODE REQUESTED BY POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT, SEP., 1978. CARBON TOTAL SEDIMENTS C MG/KG
110	CHN ANALYZER THERMAL COND. METHOD. THE SAMPLE PLUS MNO2 CATALYST ARE INJECTED IN THE COMBUSTION TUBE AT 1050 DEG. C. THE RESULTING CO2 IS MEASURED BY THERMAL COND. AND COMPARED WITH A BLANK AND A STD. FOR TOTAL ORGANIC CARBON, THE SAMPLE IS TREATED WITH ACID PRIOR TO THE ANALYSIS. FOR NITROGEN: THE RESULTING N2 GAS IS MEASURED BY THERMAL COND. REF: CARBON & NITROGEN, PARTICULATE. CCIW, BURLINGTON. NOTE: PARAMETER CODE NO. REQUESTED BY WQB, MONCTON, APRIL, 1975.
113	CALCULATED TOTAL INORGANIC CARBON. TOTAL INORGANIC CARBON = TOTAL CARBON-TOTAL ORGANIC CARBON.
118	METHOD IDENTICAL TO PARAMETER 06104L BUT ANALYSIS PERFORMED ON FIELD FILTERED (0.80 UM GLASS FIBER FILTER) SAMPLE. REQ'D BY: WATER QUALITY CONTROL BRANCH, ALBERTA ENVIRONMENT MARCH, 1980. CARBON DISSOLVED ORGANIC C MG/L
119	COLOURIMETRIC ANALYSIS. IF TURBID, THE SAMPLE IS FILTERED THROUGH A 0.45 U MEMBRANE FILTER. IN AN AUTOMATED SYSTEM THE SAMPLE IS SPARGED WITH NITROGEN GAS OR AERATED IN AN ACID MEDIUM TO REMOVE INORGANIC CARBON AND THE REMAINING ORGANIC CARBON COMPOUNDS ARE CONVERTED TO CO2 GAS IN AN IN-LINE ACID-PERSULFATE-UV DIGESTER. AFETR DIALYSIS, THE CO2 CONCENTRATION IS DETERMINED COLOURIMETICALLY BY MEASURING THE LOSS OF COLOUR IN A BORATE BUFFERED ALKALINE PHENOLPHTHALEIN SOLUTION. REF: CROWTHER J. AND J. EVANS, DUAL CHANNEL FOR DETERMINATION OF DISSOLVED ORGANIC AND INORGANIC CARBON. ONTARIO MINISTRY OF ENVIRONMENT, MARCH 28, 1980. REQ'D BY: WATER ANALYSIS & RESEARCH SECTION, CHEMISTRY WING ALBERTA ENVIRONMENTAL CENTRE, VEGREVILLE, ALBERTA, FEB.1981
120	DISSOLVED ORGANIC CARBON IS CALCULATED BY TOTAL ORGANIC CARBON - PARTICULATE ORGANIC CARBON REQ'D BY: WQB, CALGARY, APRIL, 1981.
121	IN AN AUTOMATED SYSTEM, THE SAMPLE IS ACIDIFIED TO CONVERT INORGANIC CARBON TO CARBON DIOXIDE WHICH IS STRIPPED FROM THE SOLUTION. THE REMAINING ORGANIC CARBON COMPOUNDS ARE CONVERTED TO CARBON DIOXIDE USING AN IN-LINE ACID-PERSULFATE UV DIGESTER. THE CARBON DIOXIDE RELEASED IS ABSORBED IN A SOLUTION OF NAOH. THE ORGANIC CARBON CONCENTRATION IS DETERMINED BY THE LOSS OF CONDUCTIVITY WHICH OCCURS WHEN NAOH IS TRANSFORMED INTO NA2CO3. REF: ENVIRONMENT QUEBEC, BQMA CODE 060112, 060210 REQ"D BY: NATIONAL WATER RESEARCH INSTITUTE, BURLINGTON, MARCH, 1986
123	DOC IS ANALYSED BY DOHRMANN DC-80 CARBON ANALYSER. THE

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METHOD CODE	DESCRIPTION
123	SAMPLE IS PUMPED INTO A POTASSIUM PERSULFATE/UV CELL; THE ENSUING CARBON DIOXIDE GENERATED IS QUANTIFIED (TOTAL DISSOLVED CARBON) BY IR SPECTROMETRY. FOR ORGANIC CARBON, THE SAMPLE IS ACIDIFIED WITH H2SO4 AND SPARGED BEFORE ANALYSIS. TOTAL DISSOLVED CARBON - TOTAL DISSOLVED ORGANIC CARBON = TOTAL DISSOLVED INORGANIC CARBON. REQUESTED BY THE WASTE WATER TECHNOLOGY CENTER, INORGANIC CHEMISTRY SECTION BURLINGTON, ONTARIO, JUNE 1988.
129	PLASMA EMISSION SPECTROSCOPY (ICAP).
131	ANALYSIS PERFORMED ON FIELD FILTERED SAMPLE (0.80 MICRON) GLASS FIBER FILTER) USING THE METHOD DESCRIBED UNDER 06151. REQ'D BY: POLLUTION CONTROL LAB, ALBERTA ENVIRONMENT, JAN 80 CARBON DISSOLVED INORGANIC C MG/L
132	TOTAL INORGANIC CARBON & TOTAL CARBON - TOTAL ORGANIC CARBON (CALCULATED IN THE LAB) REQUESTED BY WQB, LONGEUIL, JANUARY 1986. CARBON INORGANIC DISSOLVED CALCULATED MG/L C
133	DISSOLVED INORGANIC CABON, XPRESSED AS MG/L C, IS CALCULATED FROM THE TOTAL ALCALNITY VALUE, (NAQUADAT CODE 10111L) AS FOLLOW: DIC= 0.23998 X TOTAL ALKALINITY (MG/L CACO3) DETECTION LIMIT IS 0.024 MG/L C REQUIRED BY W&N REGION, SASKATOON, 1988 CARBON TOTAL H2O MG/L
134	WATER SAMPLE IS FILTERED THROUGH GF/C FILTER, WHICH IS ACID WASHED. FILTER IS AIR DRIED, AND THEN ANALYSED USING A CHN ANALYSER WHICH IS EQUIPPED WITH A THERMAL CONDUCTIVITY DETECTOR THE DETECTION LIMIT IS 0.005 MG/L. BICARBONT. (CALCD.) HCO3 MG/L
135	CALCD. FROM THE VALUES OF TOTAL ALKINITY AND PHENOL PHTHAL-EIN ALKANITY IF PA=0 THEN HCO3=1.219*TA IF PA<=TA/2 THEN HCO3=1.219*(TA-2*PA) IF PA> TA/2 THEN HCO3=0 IF TA<PA THEN NO CALCULATIONS IF TA=PA AND NOT=0 THEN NO CALCULATIONS REF.: STD. METHODS FOR THE EXAMN. OF WATER AND WASTEWATER, AMERICAN PUBLIC HEALTH ASSOCN., 12TH EDITION, 1967, P. 52.
136	PREVIOUSLY CALCD. FROM DISCARDED VALUES OF PHENOL PHTHALEIN ALKALINITY AND TOTAL ALKALINITY.
137	CALCD. FROM THE VALUES OF PHENOL PHTHALEIN ALKALINITY OR PHENOL PHTHALEIN ALKALINITY AND TOTAL ALKALINITY IF PA=0 THEN CO3=0 IF PA<=TA/2 THEN CO3=1.2*PA IF PA> TA/2 THEN CO3=1.2*(TA-PA) IF TA<PA THEN NO CALCULATIONS IF TA=PA AND NOT=0 THEN NO CALCULATIONS REF.: STD. METHODS FOR THE EXAMN. OF WATER AND WASTEWATER, AMERICAN PUBLIC HEALTH ASSOCN., 12TH EDITION, 1967. P. 52.
139	CALCD. VALUE CO2 FREE = 9.7E10*Y*(TA/5E4+Y-1E-14/Y)/(1+11.22E-11/Y) Y = 10**(-PH) AND TA IS TOTAL AKALINITY REF.: HIRSCH, A.A., INDUSTRIAL AND ENGINEERING CHEMISTRY, (ANAL. EDITION), 1942, VOL. 14, P. 944. IF 4.3>PH>99 CALCULATION IS OMITTED CAUTION: THESE CALCULATED RESULTS ARE COMPUTED FROM MEASURED ANALYTICAL VALUES ACCORDING TO THE FORMULA INDICATED, THE COMPUTATIONS MAY BE IN ERROR IF THE PARAMETERS USED IN THE CALCULATION ARE SUBSEQUENTLY EDITED OR CHANGED.
140	A MEASURE OF CARBON DIOXIDE DISSOLVED IN WATER. REQ'D BY: WQB OTTAWA, SEPT. 1978.
142	SEDIMENT SAMPLE WAS FREEZE-DRIED, PULVERIZED TO ^100 MESH, TREATED WITH SULPHUROUS ACID TO REMOVE THE INORGANIC CARBON, AND ANALYSED WITH THE LECO CARBON ANALYSER.FOR ORGANIC, THE SAMPLE IS TREATED WITH SULPHUROUS ACID TO

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METHOD CODE	DESCRIPTION
142	REMOVE THE INORGANIC CARBON. REF: @ KEMP, A-LOW. 1971. ORGANIC CARBON AND NITROGEN IN THE SURFACE SEDIMENTS OF LAKES ONTARIO, ERIE AND HURON. JOURNAL OF SEDIMENTARY PETROLOGY, 41@537-548.
143	THE ACID-PRESERVED SAMPLE IS EXTD. WITH HEXANE. THE EXT. IS FRACTIONATED ON AN ALUMINA COLUMN AND THEN ANALYSED BY TEMP. PROGRAMMED GLC USING A FLAME IONIZATION DETECTOR. NOTE: CODE NO. REQUESTED BY WQB, CALGARY, JUNE 1974.
144	THE SAMPLE IS EXTRACTED 3 TIMES WITH BENZENE, DRIED AND REDUCED TO 10 ML. DIRECT ANALYSIS FOR PAH BY CAPILLARY FID-GLC AND THEN GC-MS. REQ'D BY: WQB, OTTAWA, MARCH 1980.
145	AROMATIC HYDROC. ASSOCIATED WITH OILS ARE MEASURED DIRECTLY ON THE WATER SAMPLE USING FLUORESCENCE SPECTROPHOTOMETRY. USING METHYL-NAPHTALENE AS STD. THE CONFIRMATION CAN BE DONE BY GLC USING A FLAME IONIZATION DETECTOR ON THE HEXANE EXT. AFTER FRACTIONATION ON AN ALUMINA COLUMN (SEE CODE NO. 06500). ON AN ALUMINA COLUMN (SEE CODE NO. 06500). NOTE: CODE NO. REQUESTED BY WQB, CALGARY, JUNE 1974.
147	THE TOTAL OF ALL AVAILABLE OF THE FOLLOWING PARAMETERS 18045L,18060L,18150L & 18052L. OF THE VALUES USED TO ARRIVE AT THE TOTAL, ANY TRACES (L0.001) WERE INCLUDED AS A VALUE OF 0.0007. VALUES OF 0.0 FOUND WERE INCLUDED AS 0.0 EXCEPT FOR DIELDRIN WHERE 0.0002 WAS USED. TRACE AND ZERO VALUES INTERPRETED BY R.FRANK ONT.PEST.LAB. REQ'D BY: IJC,PLUARG,TASK 'C', AGRICULTURAL WATERSHED STUDY.
148	PETROLEUM ETHER EXTN. SAMPLE IS ACIDIFIED WITH H2SO4 AND EXTD. TWICE WITH PETROLEUM ETHER, OR, IF THE ETHER LAYER IS TURBID, EXTD. 3 TIMES, AND THE COMBINED EXTS. FILTERED. THE ETHER IS PARTIALLY DISTD., THEN EVAPD. AT 70 DEG.C. IN A TARED FLASK. THE FLASK IS COOLED AND DRIED IN A DESICCATOR, AND THEN WEIGHED. REF.: STD. METHODS FOR THE EXAMN. OF WATER AND WASTEWATER, AMERICAN PUBLIC HEALTH ASSOCN., N.Y., 13TH EDITION, 1971, P. 254.
149	HEXANE EXTN. SAMPLE IS ACIDIFIED WITH H2SO4 AND THEN EXTD. TWICE WITH HEXANE, OR, IF THE HEXANE LAYER IS TURBID, EXTD. 3 TIMES, AND THE COMBINED EXTS. FILTERED. THE HEXANE IS PARTIALLY DISTD., THEN EVAPD. AT 70 DEG.C. IN A TARED FLASK. THE FLASK IS COOLED AND DRIED IN A DESICCATOR, AND THEN WEIGHED. REF.: STD. METHODS FOR THE EXAMN. OF WATER AND WASTEWATER, AMERICAN PUBLIC HEALTH ASSOCN., N.Y., 13TH EDITION, 1971, P.254.
150	CHLOROFORM-ETHYL ETHER EXTN. SAMPLE IS ACIDIFIED WITH H2SO4 AND EXTD. TWICE WITH SOLVENT, OR, IF THE SOLVENT LAYER IS TURBID, EXTD. 3 TIMES, AND THE COMBINED EXTS. FILTERED. THE SOLVENT IS PARTIALLY DISTD., THEN EVAPD. AT 70 DEG.C. IN A TARED FLASK. THE FLASK IS COOLED AND DRIED IN A DESICCATOR, AND THEN WEIGHED. REF.: STD. METHODS FOR THE EXAMN. OF WATER AND WASTEWATER, AMERICAN PUBLIC HEALTH ASSOCN., N.Y., 13TH EDITION, 1971, P.254.
151	FREON EXTRACTION FOLLOWED BY IR SPECTROPHOTOMETRY. REF: STD. METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, AMERICAN PUBLIC HEALTH ASSOCIATION, N.Y., 14TH EDITION, PP 516-517 NOTE: REQUIRED BY POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT, SEP., 1978.
152	PETROLEUM ETHER/FREON EXTN. THE SEDIMENT SAMPLE ACIDIFIED TO PH2 WITH H2S04 IS EXTRACTED USING PETROLEUM ETHER OR FREON IN A SOXHLET EXTRACTION APPARATUS. THE SOLVENT IS EVAPORATED TO 1-2 ML AND THE CONCENTRATE IS TRANSFERRED TO A TARED CENTRIFUGE TUBE, THEN EVAPORATED TO DRYNESS WITH A STREAM.OF NITROGEN GAS. THE TUBE IS COOLED, DRIED IN A DESSICATOR AND THEN WEIGHED. REF: STD. METHODS FOR THE EXAM. OF WATER AND WASTEWATER. APHA-AWWA-WPCF, WASHINGTON D.C. 20036, 14TH EDITION. 1975, P.519. REQ'D BY: WATER QUALITY BRANCH. BURLINGTON. APRIL.1978
154	AUTOMATED 4-AMINOANTIPYRINE COLOURIMETRY. IF TURBID, SAMPLE

METHOD CODE	DESCRIPTION
154	IS PASSED THROUGH A GLASS FIBRE MAT. CUSO4 AND H3PO4 ARE ADDED TO THE SAMPLE. A SMALL ALIQUOT (IF SEA WATER, SAMPLE IS DILD. TO AVOID BR INTERFERENCE) IS STEAM DISTD. INTO AN ALK. (PH=10,NH4OH/NH4CL BUFFER) SOLN. CONTG. 4- AMINOANTI-PYRINE (4-AMINO-1,5-DIMETHYL-2- PHENYL-3- PYRAZOLENE) AND (NH4)2S2O8. THE RESULTING COLOUR IS MEASURED SPECTROPHOTO METRICALLY AT 505 MU AND COMPARED WITH IDENTICALLY TREATED STD. PHENOL SOLNS. A TECHNICON AUTOANALYZER UNIT IS USED. INTERFERENCES: BR, S COMPDS., STEAM DISTILLABLE ALDEHYDES. (06533) FOR PHENOL: THE COLOURED ANTIPYRINE DYE IS EXTRACTED INTO CHLOROFORM. ABSORBANCE OF THE CHLOROFORM EXTRACT IS MEASURED AT 590 NM. (06536) WL=460 MU REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, OTTAWA, 1974
157	4-AMINOANTIPYRINE COLORIMETRIC METHOD. IF TURBID THE SAMPLE IS PASSED THROUGH A GLASS FIBER MAT. PHENOLIC MATERIALS ARE STEAM DISTILLED IN AN AUTOMATED SYSTEM INTO AN ALKALINE (SODIUM TETRABORATE AND SODIUM TETRABORATE WITH ACETONE) PRESENT BUFFER SOLUTION CONTAINING 4-AMINOANTIPYRINE(4-AMINO-1,5-DIMETHYL-2-PHENYL-3-PYRAZOLENE) AND (NH4) 2S2O8. A DISTILLATION HEAD (DESCRIBED IN THE ONTARIO MINISTRY OF THE ENVIRONMENT'S AUTOMATED PHENOL METHOD) WITH A 15 COIL SPIRAL CONDENSER IS USED. TECHNICON AA-II INSTRUMENTATION IS EMPLOYED TO DETECT THE RESULTING COLOR AT 520 NM.
160	CHLOROFORM EXTRACTION USING AMINO ANTIPYRENE ASA REAGENT. SAMPLE IS PRESERVED USING ACID AND COPPER SULPHATE AND TAKEN FROM PH 2 TO PH 4. STD. 510D REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
161	FLUORESCEIN IN WATER IS MEASURED DIRECTLY USING FLUORESCENCE SPECTROPHOTOMETRY. THE SAMPLE IS FILTERED, IF TURBID, TO FREE IT FROM SUSPENDED SOLIDS. THE EXCITATION AND EMISSION WAVELENGTHS ARE 466 NM AND 510 NM, RESPECTIVELY. THE NOTE: USED IN CONNECTION WITH TRACING SEEPAGE. NOTE: REQUESTED BY ALBERTA POLLUTION CONTROL LABORATORY, OCT.1975.
162	A WATER SAMPLE IS EXTRACTED WITH CHLOROFORM, CONCENTRATED AND ANALYSED WITHOUT CLEAN-UP BY RP-HPLC WITH A UV ABSORBANCE DETECTOR. REQ'D BY: WQB, MONCTON MAY 1979.
163	A SEDIMENT SAMPLE IS EXTRACTED BY MEANS OF A SONICATOR CELL DISRUPTOR WITH ACETONE. WATER IS ADDED TO THE EXTRACT AND THE P-NONYLPHENOL IS PARTITIONED INTO HEXANE, CONCENTRATED AND ANALYSED WITHOUT CLEAN-UP BY RP-HPLC WITH A UV ABSORBANCE DETECTOR. REQ'D BY: WQB, MONCTON, MAY 1979.
164	TUNGSTOPHOSPHORIC AND MOLYBDOPHOSPHORIC ACID COLOURIMETRY. IF TURBID, SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILT--ER. A SAMPLE ALIQUOT IS ADDED TO A SOLN. OF TUNGSTOPHOSPHO-RIC ACID (H3PW12O40) AND MOLYBDOPHOSPHORIC ACID (H3PMO12O40) AFTER 5 MIN NA2CO3 SOLN. IS ADDED. AFTER 10 MIN THE RESULT-IS MEASURED SPECTROPHOTOMETRICALLY AT 440 MU AND COMPARED WITH A STD. SODIUM LIGNOSULPHONATE (NO EXACT FORMULA) SOLN. ING COLOUR IS MEASURED SPECTROPHOTOMETRICALLY AT 6-700 MU AND COMPARED WITH A STD. SODIUM LIGNOSULPHONATE (NO EXACT FORMULA). (06552): AUTOMATED. REF.: STD. METHODS FOR THE EXAMN. OF WATER AND WASTEWATER, AMERICAN PUBLIC HEALTH ASSOCN., 13TH EDITION, 1971, P. 346.
166	COLOURIMETRY. IF TURBID, SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. ACETIC ACID, NANO2 AND NH4OH ARE ADDED TO A SAMPLE ALIQUOT. AFTER 15 MIN THE RESULTING COLOUR IS MEASUR-ED SPECTROPHOTOMETRICALLY AT 440 MU AND COMPARED WITH A STD. SODIUM LIGNOSULPHONATE (NO EXACT FORMULA) SOLN. REF.: JAYNE, G., AND POHL, E., DAS PAPIER, 1967, VOL 21,P. 645.
167	GAS CHROMATOG. SAMPLE IS EXTD. WITH N-HEXADECANE (C16H34), N-HEPTANE (C7H16) OR SIMILAR SOLVENT. THE EXT IS THEN INJECTED INTO A GAS CHROMATOGRAPH EQUIPPED WITH DC-200 (10% W/W) ON CHROMOSORB W, DCMS, 80-100 MESH, 6 FEET, 1/4 INCH DIAM. COLUMNS. THE NON-SOLVENT AREA OF THE CHROMATOGRAM IS COMPARED WITH THOSE OF A SERIES OF STD. PREMIUM GASOLINE SOLNS. REF.: DEMAYO, A., IDENTIFICATION OF PETROLEUM PRODUCTS IN WATER, INLAND WATERS BRANCH, 1970.

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METHOD CODE	DESCRIPTION
175	UV SPECTROPHOTOMETRIC METHOD. IF TURBID, SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. THE PH OF THE FILTRATE IS ADJUSTED TO 6.0. AN ALIQUOT OF THE FILTRATE IS THEN EXCITED AT 270 MU AND THE FLUORESCENT EMMISSION MEASURED SPECTROFLUORIMETRICALLY AT 452 MU, AND COMPARED WITH THOSE OF STD. PURIFIED HUMIC ACID SOLNS. INTERFERENCE: WATER BACKGROUND FLUORESCENCE. CAN ALSO BE MEASURED AT 250 MU. REF.: ZITKO, V., PRIVATE COMMUNICATION, FISHERIES RESEARCH BOARD.
177	THE SAMPLE IS MADE ALKALINE AND HOMOGENIZED. ONE ALIGUOT IS ADJUSTED TO PH7 AND TOTAL ORGANIC CARBON IS DETERMINED BY INFRARED ANALYSIS, DUAL CHANNEL METHOD. A SMALL VOL. OF THE BLENDED SAMPLE IS INJECTED INTO A COMBUSTION TUBE AT 950 DEG.C. CONTAINING PUMICE STONE IMPREGNATED WITH COBALT OXIDE. THE RESULTING CO2 IS MEASURED BY AN IR ANALYSER AND COMPARED WITH STD. ORG. C SOLNS. TO GIVE TOTAL C.AN IDENTICAL VOL. IS INJECTED INTO A COMBUSTION TUBE AT 150 DEG.C. CONTAINING 85% H3PO4 ON QUARTZ CHIPS. THE RESULTING CO2 IS MEASURED BY AN IR ANALYSER, AND COMPARED WITH STD. INORG.C SOLNS. TO GIVE THE TOTAL INORG. C. THE TOTAL ORG.C IS FOUND BY DIFFERENCE. INTERFERENCE: LARGE PARTICLES MAY NOT BE INJECTED. A SECOND ALIQUOT IS ADJUSTED TO PH2 WITH HCL AND STORED AT 4 DEG.C. FOR 5 DAYS IN THE DARK UNDER A NITROGEN ATMOSPHERE. THE PRECIPITATED HUMIC ACID IS CENTRIFUGED. THE TOTAL ORGANIC CARBON (FULVIC ACID) IS DETERMINED FOR THE SUPERNATANT LIQUID. HUMIC ACIDS ARE GIVEN BY DIFFERENCE: HUMIC ACID = TOC (PH7) - TOC (PH2). FOR DISSOLVED, THE SAMPLE IS PREVIOUSLY FILTERED THROUGH A 0.45 MICRON WHATMAN GF/C FILTER. REQ'D BY : WQB, CALGARY, MAY 1978.
179	THE SAMPLE IS MADE ALKALINE AND HOMOGENIZED. ONE ALIQUOT IS ADJUSTED TO PH7 AND TOTAL ORGANIC CARBON IS DETERMINED BY INFRARED ANALYSIS. IN AN AUTOMATED SYSTEM THE SHAKEN SAMPLE IS ACIDIFIED TO CONVERT INORGANIC CARBON TO CO2 WICH IS STRIPPED FROM SOLUTION. THE REMAINING LIQUID PHASE IS PASSED THROUGH A UV COIL TO OXIDIZE ORGANIC CARBON COMPOUNDS. THE RESULTING CO2 IS MEASURED BY AN IR ANALYSER AND COMPARED WITH STANDARD ORGANIC CARBON SOLUTIONS. A SECOND ALIQUOT IS ADJUSTED TO PH2 WITH HCL AND STORED AT 4 DEG.C FOR 5 DAYS IN THE DARK UNDER A NITROGEN ATMOSPHERE. THE PRECEPITATED HUMIC ACID IS CENTRIFUGED. THE TOTAL ORGANIC CARBON (FULVIC ACID) IS DETERMINED FOR SUPERNATANT LIQUID. HUMIC ACIDS ARE GIVEN BY DIFFERENCE HUMIC ACID = TOC (PH7) - TOC (PH2). REQ'D BY: WQB, CALGARY, MAY 1979.
183	COLOURIMETRY. THE SHAKEN SAMPLE IS HEATED WITH CHROMOTROPIC ACID IN PRESENCE OF H2SO4 TO FORM A PURPLE COMPLEX. THE INTENSITY OF THE DYE IS MEASURED AT 570 NM. REF: R. GAMBLE, DEPT. OF FISHERIES AND ENVIRONMENT, NEW BRUNSWICK. NOTE: PARAMETER CODE NO. REQUESTED BY DEPT. OF FISHERIES AND ENVIRONMENT, ENVIRONMENTAL SERVICES, FREDERICTON, NEW BRUNSWICK, NOV. 1973.
184	DISTN. FOLLOWED BY PYRIDINE-PYRAZOLONE COLOURIMETRY. SAMPLE IS FIRST FREED OF SULPHIDE ION BY PPTN. WITH PBCO3 AT PH=11. FATTY ACIDS ARE REMOVED BY SOLVENT EXTN. AT PH=6-7. IF SAMPLE OXIDIZES STARCH-IODIDE PAPER, IT IS TITRATED WITH NA2SO3 UNTIL IT NO LONGER DOES SO. SAMPLE IS THEN DISTD. IN THE PRESENCE OF MGCL2, HGCL2 AND H2SO4. THE DISTILLATE IS COLLECTED IN 1N NAOH. THE PH OF AN ALIQUOT OF THIS SOLN. IS ADJUSTED TO 6-7, AND A STD. CHLORAMINE-T (SODIUM P-TOLUENE-SULPHONCHLORAMINE) AND A STD. SOLN. IN PYRIDINE OF BIS-PYRAZOLONE (1-PHENYL-3-METHYL-5-PYRAZOLONE) ARE ADDED. THE ABSORBANCE AT 620 MU IS COMPARED WITH THOSE OF STD. CYANIDE SOLNS. INTERFERENCES: FATTY ACIDS, HEAVY METALS FORMING STABLE COMPLEX CYANIDES, OXIDIZING AGENTS, AND SULPHIDE ION, REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
185	COLORIMETRY ON AN AUTOANALYZER. SETTLED SAMPLE IS ANALYZED USING UV DIGESTION FOLLOWED BY DISTILLATION OF HCN PRODUCED. HCN IS ABSORBED IN SODIUM ACETATE. THIS SOLUTION IS REACTED WITH CHLOROMINE T IN PRESENCE WITH PYRIDINE-PYROZOLONE TO FORM A BLUE COMPLEX. THE INTENSITY OF THE COLOUR IS MEASURED AT 620 NM. SAMPLES ARE COMPARED TO STANDARDS. REF: P.D. GOULDEN, B.K. AFGHAN AND P. BROOKSBANK, ANAL. CHEM. 44, 1845-9 (1972). NOTE: PARAMETER CODE REQUESTED BY WQB, CALGARY, FEB. 1975.

METHOD CODE	DESCRIPTION
186	SAMPLE IS FREED OF SULFIDE ION BY PRECIPITATING WITH PBCO3 AT PH 11. SAMPLE IS DISTILLED IN THE PRESENCE OF 3X10-3 M EDTA (NA) AND H2SO4 AND COLLECTED IN IN NAOH. CYANIDE IS DETERMINED BY AN ORION SPECIFIC ION ELECTRODE MODEL 94-06. REF: ENVIRONMENT CANADA, EPS, METHODS FOR CHEMICAL ANALYSIS OF WATER AND WASTEWATER, SURVEILLANCE REPORT EPS5-AR-73-12. NOTE: CODE REQUESTED BY EPS, ATLANTIC REGION, SEPT 1975.
187	CHLORAMINE-T, PYRIDINE BARBITURIC ACID COLORIMETRY ON AN AUTOANALYZER. IF TURBID THE SAMPLE IS DECANTED. THE SAMPLE IS ACIDIFIED WITH A PHOSPHORIC ACID, HYPOPHOSPHOROUS ACID MIXTURE AND THEN IRRADIATED IN A QUARTZ COIL BY A U.V. LAMP. THE SAMPLE IS THEN DISTILLED AND BUFFERED TO A PH OF 5.2 USING A POTASSIUM DIHYDROGEN PHOSPHATE, DISODIUM HYDROGEN PHOSPHATE BUFFER. THE SAMPLE IS REACTED WITH CHLORAMINE-T AND A PYRIDINE BARBITURIC ACID REAGENT. THE INTENSITY OF THE COLOR PRODUCED IS MEASURED SPECTROPHOTOMETRICALLY AT 580 MU, OR 540 MU AND COMPARED WITH THOSE OF STANDARD KCN SOLUTIONS. INTERFERENCE: HYDROGEN SULPHIDE. THE CHEMISTRY IS LINEAR OVER THE RANGE 0.5 - 50 UG/L. THE SAMPLING RATE IS 30/HR. REF.: TECHNICON INDUSTRIAL METHOD NO. 315-74W. REQ'D BY: WATER QUALITY BRANCH, VANCOUVER JULY 1976
190	THE SAMPLE IS FILTERED ON A 0.45 MU MEMBRANE FILTER. THE FILTER IS PLACED IN A VOLUME OF 9:1 V/V ACETONE AND DISTILLED WATER MIXTURE, CAPPED, AND KEPT IN A DARK PLACE FOR 20 HOURS. CHLOROPHYLL A. B. AND C. ARE CALCULATED FROM THE MEASURED AT 750, 665, 745 AND 630 NM. (06711 & 06712 & 06713): CENTRIFUGATION. REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY 1977.
196	FLUOROMETRY. SAMPLE IS FILTERED THROUGH A 0.45 U MEMBRANE FILTER AND STORED AT -60 DEG.C. THE RESIDUE AND FILTER ARE BLENDED IN ACETONE-WATER SOLN., THEN CENTRIFUGED. THE FLUORESCENCE OF THE SUPERNATANT IS MEASURED. THE RESULTS ARE THEN CORRECTED FOR PHEOPHYTIN CONTENT. REF: YENTSCH AND MENZEL, DEEP SEA RESEARCH 10, 221 (1913). NOTE: PARAMETER CODE NO. REQUESTED BY DEPT. OF FISHERIES AND ENVIRONMENT, ENVIRONMENTAL SERVICES, FREDERICTON, NEW BRUNSWICK, NOV. 1973. CHLORO- PHYLL A MG/M3
197	FLUOROMETRY. SAMPLE IS FILTERED THROUGH A 0.8 U MEMBRANE FILTER. THE RESIDUE IS EXTD. WITH ACETONE-WATER MIXT. (9=1 V/V), THEN CENTRIFUGED. FLUORESCENCE INTENSITIES ARE MEASURED ON A PRECALIBRATED FLUOROMETER EQUIPPED WITH A WRATTEN 47B FOR THE EXCITATION LIGHT AND A CORNING CS.2-64 FILTER FOR THE EMITTED LIGHT. REF: STRICKLAND, J.D.H. AND PARSONS, T.R., A PRACTICAL HANDBOOK OF SEA WATER ANALYSIS, FISHERIES RESEARCH BOARD OF CANADA, 1972, P.201. NOTE: CODE NO. REQUESTED BY WQB, MONCTON, FEB. 1974.
198	COLORIMETRY. SAMPLE IS FILTERED THROUGH A GELMAN A-E (GLASS FIBER) FILTER. THE RESIDUE IS EXTRACTED WITH AN ACETONE-WATER MIXTURE (9:1 V/V) USING POLYTRON ULTRASONIC EXTRACTION THEN CENTRIFUGED. CONCENTRATION OF CHLOROPHYLL A IS CALCULATED AND CORRECTED FOR PHEOPHYTIN ACCORDING TO THE LORENZEN METHOD. THE RESULTS ARE UNCORRECTED FOR PHEOPHYTIN FOR 06718. PHYTOPLANKTON: THE MIXTURE IS STORED AT -4 DEG.C FOR 24 HRS, THEN CENTRIFUGED. EPILITHON: INDIVIDUAL ROCKS ARE BRUSHED AND THE ROCK AREA IS DETERMINED PLANIMETRICALLY. REF: POLYTRON EXTRACTIONS - B.K. AFGHAN, UNPUBLISHED REPORT. LORENZEN CALCULATION - FISHERIES RESEARCH BOARD OF CANADA BULLETIN 169, PP 185-309, 1968. REQ'D BY: WQB, CALGARY, FEB. 1980.
201	REQ'D BY: WQB, LONGUEUIL, JULY 1983. CHLORO- PHYLL A PHYTO- PLANKTON MG/M3
204	STATIC (20 HOUR) METHANOL EXTRACTION OF SAMPLES ON GLASS-FIBRE FILTERS FOLLOWED BY FLUOROMETRY. RESULTS ARE UNCORRECTED FOR PHAEOPHYTIN. REQ'D BY: FWI/ELA FIELD LAB, AUGUST 1984.
205	SUSPENDED ALGEA ARE FILTERED USING A GF/C MEMBRANE. THEY

METHOD CODE	DESCRIPTION
205	ARE PUT IN SOLUTION WITH ACETONE AND THEN CRUSHED MECHANICALLY. A COMBINATION OF FLUOROMETRY AND SPECTROMETRY IS USED. THE SOLUTION IS EXCITED BY A BLUE LIGHT OF WAVELENGHT 430-445 NM. THERE IS A LIGHT OF WAVELENGTH 645-675 NM EMITTED BY THE SOLUTION WHICH IS PROPORTIONAL TO THE CONCENTRATION OF THE PIGMENT. THE VALUE IS THEN COMPARED WHITH A SOLUTION OF KNOWN CONCENTRATION OF CHLOROPHYLLE. A FIRST MEASURE OF FLUORESCENCE HELPS TO DETERMINE CHLOROPHYLLE-A TOTAL. IF WE WICH TO MEASURE ACTIVE CHLOROPHYLLE AND PHAEO-PIGMENTS, WE ACIDIFY THE SAMPLE WITH HCL AND WE TAKE ANOTHER MEASURMENT OF THE FLUORESCENCE A SYSTEM OF TWO EQUATIONS WITH TWO UNKNOWNS HELPS TO DETERMINE THE CONCENTRATION OF ACTIVE CHLOROPHYLE-A AND PHAEO-PIGMENTS REQUIRED BY ENVIRONMENT QUEBEC 1988
207	FLUOROMETRY. SAMPLE IS FILTERED THROUGH A 0.45 U MEMBRANE FILTER AND STORED AT -60 DEG.C. THE RESIDUE AND FILTER ARE BLENDED IN AN ACETONE-WATER SOLN., THEN CENTRIFUGED. THE FLUORESCENCE OF THE SUPERNATANT IS MEASURED. THE RESULTS ARE THEN CORRECTED FOR CHLOROPHYLL A CONTENT. REF: YENTSCH AND MENZEL, DEEP SEA RESEARCH 10, 221 (1913). NOTE: PARAMETER CODE NO. REQUESTED BY DEPT. OF FISHERIES AND ENVIRONMENT, ENVIRONMENTAL SERVICES, FREDERICTON, NEW BRUNSWICK, NOV. 1973.
208	THE SAMPLE IS EXTD. WITH HEXANE, CONCD., CHROMATOGRAPHED THROUGH ALUMINA, AND THEN ANALYSED BY GLC WITH A FID DETECTOR. NOTE: CODE NO. REQUESTED BY WQB, CALGARY, APRIL 1974.
210	THERMAL COND. METHOD. SAMPLE IS PASSED THROUGH A PREIGNITED WHATMAN GF/C FILTER. THE RESIDUE IS WASHED WITH DIL. H_2SO_4 TO REMOVE CO_3 IONS. THE FILTER CONTG. THE RESIDUE IS DRIED, AND PUT IN A COMBUSTION TUBE AT 950 DEG.C. THE RESULTING CO_2 OR N_2 IS MEASURED BY THERMAL COND., AND COMPARED WITH A BLANK AND A STD. REF.: WATER QUALITY BRANCH, BURLINGTON.
213	PARTICULATE ORGANIC CARBON IS GIVEN BY TOTAL ORGANIC CARBON - DISSOLVED ORGANIC CARBON. REQ'D BY: WQB, CALGARY, OCT. 1980.
214	THERMAL CONDUCTIVITY METHOD. THE SAMPLE IS PASSED THROUGH A PREIGNITED WHATMAN GF/C FILTER. THE FILTER CONTAINING THE RESIDUE IS DRIED, PUT IN A TIN CRUCIBLE AND INTRODUCED IN A COMBUSTION TUBE (1050 DEG C). THE RESULTING CO_2 IS MEASURED BY THERMAL CONDUCTANCE AND COMPARED WITH A BLANK AND A STD. A CARLO ERBA 1106 CHN ANALYZER IS USED. REQ'D BY WATER ANALYSIS & RESEARCH SECTION, ALBERTA ENVIRONMENTAL CENTRE AUGUST 1981.
216	RATIO OF TOTAL C (CODE 06910) TO TOTAL N (CODE 07605).
217	DISTN METHOD. THE SHAKEN SAMPLE IS DIGESTED WITH CONCD. H_2SO_4, IN THE PRESENCE OF $HGSO_4$ AND K_2SO_4 OR CU CATALYST TO GIVE NH_4HSO_4.THE SOLN. IS THEN MADE ALK., THE NH_3 DISTD.OR CU CATALYST, AND COLLECTED IN AN H_3BO_3 SOLN. THE DISTILLATE IS THEN TITRATED WITH 0.02N H_2SO_4. 'N POINT' INDICATOR IS USED. FOR ORGANIC AND TOTAL AMMONIA: IF NECESSARY, THE SHAKEN SAMPLE IS NEUTRALIZED TO PH=7, A PHOSPHATE BUFFER SOLN. (PH=7.4) IS ADDED. IF CA ION EXCEEDS 250 MG/L, MORE BUFFER SOLN. IS ADDED, AND THE SOLN. TITRATED TO PH=7.4. (07005):THE DISTILLATE NH_3 IS DETERMINED BY THE MANUAL INDOPHENOL BLUE METHOD. DISSOLVED: IF TURBID THE SAMPLE IS PASSED THROUGH A 0.45 MICRON MEMBRANE FILTER. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
219	THE SHAKEN SAMPLE IS DIGESTED WITH CONCD. H_2SO_4, IN THE PRESENCE OF $K_2S_2O_8$ OR DISODIUM EDTA, OR DIPOTASSIUM EDTA. THE RESULTANT NH_3 IS THEN DETERMINED COLOURIMETRICALLY ON AN AUTOANALYZER WITH ALK. PHENOL, POTASSIUM SODIUM TARTRATE AND SODIUM HYPOCHLORITE. (BERTHELOT METHOD). THE RESULTING COLOR IS MEASURED AT 630 NM. DISSOLVED: THE SAMPLE IS PASSED THROUGH A 0.45 MICRON FILTER. TOTAL AMMONIA: NO DIGESTION. (07020): FIELD FILTERED SAMPLE (0.80 U).
220	COLOURIMETRY ON AUTOANALYZER. THE SHAKEN SAMPLE IS DIGESTED

METHOD CODE	DESCRIPTION
220	WITH HCLO4 AND H2SO4 SOLNS. THE RESULTING SOLN. IS MIXED WITH NA SALICYLATE, NA DICHLOROISOCYANURATE, AND NA NITROPRUSSIDE TO FORM A GREEN COMPLEX. THE INTENSITY OF THE DYE IS MEASURED AT 660 NM. REF: TECHNICIAN INDUSTRIAL METHOD NO. 170-72W. NOTE: PARAMETER CODE NO. REQUESTED BY DEPT. OF FISHERIES AND ENVIRONMENT, ENVIRONMENTAL SERVICES, FREDERICTON, NEW BRUNSWICK, NOV. 1973.
224	SEMI-AUTOMATED. A SEDIMENT SAMPLE IS FREEZE-DRIED AND GROUND TO PASS A 120 MESH SIEVE. A REPRESENTATIVE PORTION IS DIGESTED WITH H2SO4, K2SO4 AND A MERCURY CATALYST AT 375C. ORGANIC NITROGEN IS CONVERTED TO AMMONIUM SULPHATE AND THE AMMONIA DETERMINED COLORIMETRICALLY ON AN AUTOMATED SYSTEM BY BERTHELOT REACTION AT 660 NM. REF: METHODS MANUAL, POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT, EDMONTON, 1978. NOTE: CODE REQUESTED BY POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT, SEP., 1978.
225	AUTOMATED COLORMETRIC METHOD WITH AUTOANALYZER. SAMPLES ARE CONTINUOUSLY DIGESTED AT 300 C WITH H2SO4 AND H2O2. THE ORGANIC NITROGEN CONVERTED TO AMMOMIUM SULPHATE IS THEN ANALYZED USING NA-SALICYLATE, DICHLOROISOCYANURATE AND NA-NITROPRUSSIDE. THE RESULTING BLUE COLOR IS MEASURED AT 660 MU. TOTAL AMMONIAA: NO DIGESTION. (WATER QUALITY BRANCH, CCIW BURLINGTON)
226	DIGESTION OF THE SAMPLE WITH SALICYLIC-SULPHURIC ACID SOL'N AND ZINC. KEL-PAK DIGESTION IS CONTINUED (MERCURIC OXIDE, POTASSIUM SULPHATE) UNTIL CLEAR. THEN DISTILATION OF AMMONIA INTO BORIC ACID IS ACCOMPLISHED WITH NAOH-NA2S2O3ZN. TITRATE USING 0.05 N H2SO4. THIS METHOD ACCOUNTS FOR THE ORGANIC,NO2 ,NO3,AND NH4 FORMS OF N. REQ'D BY: IJC,PLUARG,TASK 'C',AGRICULTURAL WATERSHEDS STUDY.
227	THE SHAKEN SAMPLE IS DIGESTED WITH CONCENTRATED H2SO4 AND K2SO4 TO GIVE NH4HSO4. THE SOLUTION IS THEN MADE ALKALINE WITH NAOH AND AMMONIA DETERMINED BY ORION GAS SENSING ELECTRODE - MODEL 95-10. IF FREE AMMONIA WAS DONE ON PRESERVED SAMPLE AND TKN WAS DONE THEN SUBTRACTING AMMONIA-N FROM TKN WOULD GIVE TON. NOTE: CODE REQUESTED BY EPS, ATLANTIC REGION, SEPT. 1975
231	SAMPLES ARE DIGESTED USING A TECHNICON BLOCK DIGESTOR AND ASSAYED USING AN AUTO ANALYZER II CONTINUOUS FLOW ANALYTICAL SYSTEM. THE DETERMINATION IS BASED ON A COLORMETRIC METHOD IN WHICH AN EMERALD-GREEN COLOUR IS FORMED BY THE REACTION OF AMMONIA, SODIUM SALICYLATE, SODIUM NITROPRUSSIDE AND SODIUM HYPOCHLORITE IN A BUFFERED ALKALINE MEDIUM AT A PH OF 12.8-13.0. THE AMMONIA-SALICYLATE COMPLEX IS READ AT 660 NM. REF: TECHNICON AUTO ANALYZER II, INDUSTRIAL METHODS NO. 329 74 W/A AND 376-75 W/A. FOR TOTAL AMMONIA, NO DIGESTION. REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
233	BLOCK DIGESTION OF AN UNFILTERED SAMPLE WITH HYDROGEN PEROXIDE/SULPHERIC ACID FOLLOWED BY AUTOMATED COLOURIMETRIC ANALYSIS BASED ON THE FORMATION OF AN ENDOPHENOLCHROMOPHOR ABSORBING 600 NM.
235	COLOURIMETRY ON AUTO ANALYZER: WATER SAMPLES ARE DIGESTED WITH H2SO4, K2SO4 AND HGO CATALYST IN A BLOCK DIGESTER (BD-40) DURING A TWO STAGE HEATING CYCLE (200 C AND 360 C). ORGANIC NITROGEN IS CONVERTED TO AMMONIA WHICH IS DETERMINED BY AUTOMATED COLORIMETRY OF THE BERTHELOT REACTION AT 660 MM. REF: CROWTHER, J.; ET AL SEMI-AUTOMATED PROCEDURE FOR THE DETERMINATION OF TOTAL NUTRIENTS, WATER QUALITY SECTION, MINISTRY OF THE ENVIRONMENT, ONTARIO REQ'D BY: WATER ANALYSIS SECTION, ALBERTA ENVIRONMENTAL CENTRE, MARCH 1982
236	COLOURIMETRY ON AUTO ANALYZER. THE SHAKEN SAMPLE IS DIGESTED WITH HCLO4, THEN NEUTRALIZED. THE RESULTING SOLUTION IS MIXED WITH ALK PHENOL, NA NITROPRUSSIDE, AND NACLO (BERTHELOT REACTION). THE RESULTING COLOUR IS MEASURED AT 650 NM.

METHOD CODE	DESCRIPTION
236	REQ'D BY: SASK. RESEARCH COUNCIL. FEB, 1984
239	COLOURIMETRY ON AN AUTOANALYZER. THE SAMPLE, AFTER FILTRATION THROUGH A 0.45 U MEMBRANE FILTER, IS REDUCED BY CD. THE RESULTING NITRITE IS DETERMINED WITH SULPHANILIC ACID AND 1-NAPHTHYLAMINE. DISSOLVED NITRITE: NO REDUCTION BY CD. (07251): A 320-D COLOR DISC IS USED. COLOURMETRY ON AN AUTOANALYSER. IF TURBID, THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. AN ALIQUOT OF THE SAMPLE IS MIXED WITH A DISODIUM EDTA; DISODIUM DIHYDROGEN ETHYLENEDIAMINE TETRAACETATE SOLN. AND PASSED THROUGH A COLUMN OF CD FILINGS. A SULPHANILAMIDE SOLN THE SAMPLE TO FORM AN AZO DYE. THE INTENSITY OF THE DYE IS MEASURED SPECTROPHOTOMETRICALLY AT 550 MU, AND COMPARED WITH THOSE OF STD. NO3 AND NO2 ION SOLNS.(07112): NO FILTRATION,(07119): FIELD FILTERED SAMPLE (0.8 U FILTER). REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974. THEN A N-1-NAPHTHYLETHYLENEDIAMINE DIHYDROCHLORIDE SOLN. ARE ADDED TO
242	COLOURIMETRY ON AN AUTOANALYZER, THE SAMPLE, AFTER FILTRATION THROUGH A 0.45 U MEMBRANE FILTER, IS REDUCED BY ZN. THE RESULTING NITRITE IS DETERMINED WITH SULPHANILAMIDE AND N-1-NAPHTHYLETHYLENEDIAMINE DIHYDROCHLORIDE.
243	COLOURIMETRY ON AN AUTOANALYZER. THE SAMPLE, AFTER FILTRATION THROUGH A 0.45 U MEMBRANE FILTER, IS REDUCED BY HYDRAZINE SULPHATE CONTAINING A COPPER CATALYST. THE RESULTING NITRITE IS DETERMINED WITH SULPHANILAMIDE AND N-1-NAPHTHYLETHYLENEDIAMINE DIHYDROCHLORIDE.
245	COLOURIMETRY. IF TURBID THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. AN ALIQUOT IS MIXED THEN WITH NH4CL SOLN. AND PASSED THROUGH A COLUMN OF AMALGAMATED CD FILINGS. SULPHANILAMIDE AND N-1-NAPHTYLETHYLENEDIAMINE SOLNS. ARE ADDED TO FORM AN AZO DYE. THE INTENSITY OF THE DYE IS MEASURED AT 543 NM. REF: STD. METHODS FOR THE EXAMN. OF WATER AND WASTEWATER, WATER POLLUTION CONTROL FEDERATION, 1971, P. 458. NOTE: PARAMETER CODE REQUESTED BY DEPT. OF FISHERIES AND ENVIRONMENT, ENVIRONMENTAL SERVICES, FREDERICTON, NEW BRUNSWICK, NOV. 1973.
248	ANALYSIS PERFORMED ON FIELD FILTERED SAMPLE (0.80 MICRON) GLASS FIBER FILTER) USING THE METHOD DESCRIBED UNDER 07110. REQ'D BY: POLLUTION CONTROL LAB, ALBERTA ENVIRONMENT, JAN 80 NITROGEN DISSOLVED NO3 & NO2 NO3 MG/L
251	SEMI-AUTOMATED. A SEDIMENT SAMPLE IS FREEZE-DRIED AND GROUND TO PASS A 120 MESH SIEVE. A REPRESENTATIVE PORTION IS EXTRACTED WITH AQUEOUS KCL AND THE NITRATE AND NITRITE IN THE CLARIFIED EXTRACT ARE DETERMINED BY AN AUTOMATED COLORIMETRIC CADMIUM REDUCTION METHOD AT 550 NM. FOR TOTAL AMMONIA, AUTOMATED COLORIMETRIC PHENATE METHOD AT 630 NM. REF: METHODS MANUAL, POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT, EDMONTON, 1978. NOTE: CODE REQUESTED BY POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT, SEP., 1978.
257	THE REMAINDER OF PARAMETER NITRITE DISSOLVED SUBSTRACTED FROM PARAMETER NITROGEN DISSOLVED. REQ'D BY: IJC,PLUARG,TASK'C',AGRICULTURAL WATERSHEDS STUDY.
258	COLOURIMETRY WITH BRUCINE-SULPHANILIC ACID REAGENT. DETERMINED ON 0.45 MICRON FILTERED SAMPLE.
260	SPECTROPHOTOMETRIC MEASUREMENT OF THE ULTRAVIOLET ABSORPTION DETERMINED ON A 0.45 U FILTERED SAMPLE.
261	COLOURIMETRIC WITH CHROMOTROPIC ACID. TURBID SAMPLES ARE FILTERED, THEN TREATED WITH SULPHITE UREA REAGENT AND ANTIMONY REAGENT. CHROMOTROPIC ACID REAGENT, THEN SULPHURIC ACID ARE ADDED. AFTER 45 MIN. ABSORBANCE IS READ AT 410 MU. REF. EDT. ' METHOD FOR EXAMINATION OF WATER AND WASTEWATER ' 13TH ED., 1971. REQ'D BY: IJC,PLUARG,TASK 'C',AGRICULTURAL WATERSHEDS STUDY.
262	DETERMINED BY ALKALINE-TITANOUS SULPHATE REDUCTION-DISTILLATION (NO3 ---> NH4) AND NINHYPRIN COLOURIMETRIC PROCEDURE.

METHOD CODE	DESCRIPTION
262	REQ'D BY: IJC,PLUARG,TASK 'C',AGRICULTURAL WATERSHEDS STUDY.
263	THE CHLORIDE IS SEPARATED WITH SILVER SULPHATE,THEN THE PHENOLDISULPHONIC ACID METHED IS FOLLOWED AND COMPARED TO STANDARDS READ AT 410 NM.NITRITE LEVELS MUST BE BELOW .2MG/L REQ'D BY: IJC,PLUARG,TASK 'C',AGRICULTURAL WATERSHEDS STUDY.
264	SELECTIVE ION ELECTRODE METHOD - DIRECT MEASUREMENT ON A 100 ML. SAMPLE USING NITRATE ION ELECTRODE AND A CALIBRATION CURVE FROM STANDARD SOLUTIONS. REQ'D BY: IJC,PLUARG,TASK'C',AGRICULTURAL WATERSHEDS STUDY.
265	CADMIUM REDUCTION. REQ'D BY: GEMS-GLOWDAT, CCIW, SEPT. 1980.
266	DEVARDA'S ALLOY METHOD. REQ'D BY: GEMS-GLOWDAT, CCIW, SEPT. 1980.
267	ION CHROMATOGRAPHY: DISSOLVED: THE SAMPLE IS FILTERED THROUGH A 0.45 U FILTER. REQ'D BY: WQB, BURLINGTON, FEB. 1983.
268	COLOURIMETRIC WITH PHENOLDISULPHONIC ACID. SHAKEN SAMPLE.
270	CALCULATED ORGANIC NITROGEN ORGANIC NITROGEN = TOTAL KJELDAHL NITROGEN - TOTAL AMMONIA
271	VALUE CALCD. IN THE LAB. BY THE FOLLOWING EXPRESSION TOTAL ORG. N = TOTAL N - DISSOLVED NH3 - DISSOLVED NO2 & NO3. NOTE: CODE NO. REQUESTED BY WQB, MONCTON, MAY 1974.
272	VALUE CALCD. IN THE LAB BY THE FOLLOWING EXPRESSION TOTAL ORGANIC NITROGEN = PARTICULATE ORGANIC NITROGEN + TOTAL DISSOLVED ORGANIC NITROGEN. REQ'D BY= WQB, VANCOUVER, SEPT. 1980.
273	DETERMINED BY THE DUMAS METHOD IN A LECO MODEL UO-14SP NITROGEN ANALYSER, OR WITH THE COLEMAN MODEL 29A ANALYSER BY MEASURING N2 GAS PRODUCED BY COMBUSTION OF SEDIMENT SAMPLE WITH CUO-PT CATALYST AT 940 DEG. C. REF.@ KEMP, A.L.W. AND A. MUDROCHOVA 1973. THE DISTRIBUTION AND NATURE OF AMINO ACIDS AND OTHER NITROGEN-CONTAINING COMPOUNDS IN LAKE ONTARIO SURFACE SEDIMENTS. GEOCHIMICA COSMOCHIMICA ACTA, 37@2191-2206.
276	DISTILLATION WITH ALKALINE POTASSIUM PERMANGANATE (ABSORPTION OF AMMONIA IN BORIC ACID). FOLLOWED BY NESSLERIZATION WITH VISUAL COMPARAISON ON A SHAKEN SAMPLE. FOR DISSOLVED THE SAMPLE IS FILTERED THROUGH A 0.45 U FILTER.
278	ION SELECTIVE ELECTRODE. A SAMPLE ALIQUOT IS ADJUSTED TO PH 12 OR GREATER USING 10 MOLAR NAOH. AN IDENTICALLY PREPARED SERIES OF STDS. OF AMMONIA NITROGEN USING NH4CL ARE USED TO CALIBRATE THE SPECIFIC ION METER. THE AMMONIA CONCENTRATION OF THE SAMPLE IS READ DIRECTLY AND CORRECTED TO 25 DEG.C. REF: ORION RESEARCH INC., FORM D595-10/1711. NOTE: PARAMETER CODE REQUESTED BY WQB, CALGARY, MAY 1975.
280	TECHNICON AUTO ANALYZER II. REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
283	DIRECT NESSLERIZATION. SHAKEN SAMPLE. DISSOLVED: FILTEREDE SAMPLE (0.45 U).
284	O-TOLIDINE COLOURIMETRY ON AN AUTOANALYZER. IF TURBID, THE SAMPLE IS DECANTED.A SAMPLE ALIQUOT IS MIXED WITH AN ALK. SODIUM HEXAMETAPHOSPHATE (NA2O:P2O5 1:1 W/W) SOLN., AND DIALYZED THROUGH A MEMBRANE INTO A PHOSPHATE BUFFER SOLN. (PH=7.5), TO REMOVE INTERFERING IONS. THE DIALYZED SOLN. IS MIXED WITH A NAOCL SOLN. AFTER THE NH3 IS CHLORINATED, THE SOLN. IS MIXED WITH A SOLN. OF OXALIC AND MONOCHLOROACETIC ACIDS TO REMOVE EXCESS OCL ION. THIS SOLN. IS THEN MIXED WITH AN O-TOLIDINE (3,3-DIMETHYL-4,4'-DIAMINODIPHENYL DIHYDROCHLORIDE) SOLN. THE RESULTING COLOUR IS MEASURED SPECTROPHOTOMETRICALLY AT 420 MU AND COMPARED WITH THOSE OF STD. NH3 SONLS.

ENVIRODAT/NAQUADAT METHOD CODES AND DESCRIPTIONS

METHOD CODE	DESCRIPTION
284	REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
285	DISTN. METHOD. IF TURBID, THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. IF NECESSARY, THE SAMPLE IS NEUTRALIZED TO PH=7. A PHOSPHATE BUFFER (PH=7.4) SOLN, IS ADDED. IF CA ION EXCEEDS 250 MG/L, MORE BUFFER SOLN. IS ADDED, AND THE SOLN. TITRATED TO PH=7.4. THE SAMPLE IS THEN PARTLY DISTD. THE DISTILLATE IS COLLECTED IN AN H3BO3 SOLN., AND TITRATED WITH 0.02N H2SO4. 'N POINT' INDICATOR IS USED. THE EFFECTIVE DETECTION LIMIT IS 0.5 MG/L (WATER QUALITY BRANCH, BURLINGTON). REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974. NITROGEN DISSOLVED AMMONIA N MG/L
288	MANUAL INDOPHENOL BLUE METHOD. THE SAMPLE IS TREATED WITH ALC. PHENOL SOLN., ALK. HYPOCHLORITE SOLN. AS OXIDIZING AGENT, AND NA NITROPRUSSIDE SOLN. (NAZFE(CN)5NO.2H2O), AND LET STAND AT ROOM TEMP. FOR 1 HR. THE ABSORBANCE IS THEN READ AT 640 NM. (07557): METHOD AUTOMATED ON AN AUTOANALYSER. (07563 & 07558): FILTERED (0.45 U) AND AUTOMATED. NOTE: CODE NO. REQUESTED BY WQB, VANCOUVER, APRIL 1974.
291	DETERMINATION BY ALKALINE DISTILLATION AND NINHYDRIN COLOURIMETRIC PROCEDURE. REQ'D BY: IJC,PLUARG,TASK 'C',AGRICULTURAL WATERSHEDS STUDY.
292	IF NECESSARY THE SHAKEN SAMPLE IS NEUTRALIZED TO PH 7.0. PHOSPHATE BUFFER (PH 7.4) IS ADDED AND SAMPLE DISTILLED INTO H3BO3, ALIQUOT OF DISTILLATE TREATED WITH HYPOCHLOROUS ACID AND PHENATE REAGENT. AFTER STANDING FOR 30 MINUTES ABSORBANCE IS READ AT 625 MU. REF. 'STD. METHODS FOR EXAMINATION OF WATER AND WASTEWATER' 13TH ED., 1971 REQ'D BY: IJC,PLUARG,TASK 'C',AGRICULTURAL WATERSHEDS STUDY.
298	THE CONCENTRATION OF UN-IONIZED AMMONIA AT 20 C IS GIVEN BY 4.68E-09 * EXP(2.022 * PH) * DA * 1.2 WHERE DA IS DISSOLVED AMMONIA. REF: WATER QUALITY CRITERIA 1972 (EPA R3 73 033 1973) FIG. 111-10, P. 188. REQ'D BY: WQB OTTAWA, DEC. 1978.
299	CONCENTRATION OF UN-IONIZED AMMONIA(MG/L) = TOTAL AMMONIA (MG/L) / (1+10*EXP[0.09+(2730/273+T)-PH]) WHERE TOTAL AMMONIA = 07605P OR 07605W T = FIELD TEMPERATURE (DEG C) (02061F) PH = FIELD PH (10301F) REQUESTED BY WQB REGINA, AUGUST 17 1988
300	UV DIGESTION FOLLOWED BY COLOURIMETRY ON AN AUTOANALYZER. AN AERATED ALIQUOT OF THE SHAKEN SAMPLE IS ACIDIFIED AND THEN IRRADIATED IN A QUARTZ COIL BY A UV LAMP. THE SAMPLE IS MADE ALK. AND THE IRRADN. PROCESS REPEATED. THIS SOLN. IS MIXED WITH A DISODIUM EDTA (DISODIUM DIHYDROGEN ETHYLENEDIAMINE TETRAACETATE) SOLN. AND PASSED THROUGH A COLUMN OF CD FILINGS. A SULPHANILAMIDE SOLN. THEN A N-1-NAPHTHYLETHYLENEDIAMINE DIHYDROCHLORIDE SOLN. ARE ADDED TO THE SAMPLE TO FORM AN AZO DYE. THE INTENSITY OF THE DYE IS MEASURED SPECTROPHOTOMETRICALLY AT 550 MU, AND COMPARED WITH THOSE OF STD. NO3 ION SOLNS. INTERFERENCE: TURBIDITY. FOR DISSOLVED: THE SAMPLE IS FILTERED THROUGH A 0.45 U FILTER. (07661 & 07655): FILTERED THROUGH A GLASS FILTER 0.8 U. REF: ANALYTICAL METHODS MANUAL. WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
301	CALCD. TOTAL NITROGEN TOTAL NITROGEN = TOTAL KJELDAHL NITROGEN + DISSOLVED NITRATE AND NITRITE AS NITROGEN
302	CALCULATED TOTAL NITROGEN TOTAL NITROGEN = PARTICULATE NITROGEN + DISSOLVED NITROGEN
305	WATER SAMPLE IS FILTERED THROUGH GF/C FILTER, WHICH IS ACID WASHED. FILTER IS AIR DRIED, AND THEN ANALYSED USING A CHN

METHOD CODE	DESCRIPTION
305	ANALYSER WHICH IS EQUIPPED WITH A THERMAL CONDUCTIVITY DETECTOR.
307	ORG. N COMPDS. AND NH3 ARE CONVERTED TO NO2 AND NO3 IONS BY UV IRRADN. OF THE SAMPLE AT PH=9, IN PRESENCE OF H2O2. THE REACTION MIXT. IS THEN ANALYZED FOR NO2 AND NO3 IONS. DEVIATION WAS 0.025 MG/L. NOTE: CODE NO. REQUESTED BY FRESHWATER INST., WINNIPEG.
311	THE SAMPLE IS TREATED WITH NACL, KH2PO4-H2SO4, AND MIXED REAGENT (DIACETYL-MONOXIME + NH2NHCONH2.HCL + MNCL2 + KNO3) SOLNS. AND LET STAND AT 70 DEG.C. FOR 90 MIN. THE ABSORBANCE AT 520 NM IS THEN READ AND COMPARED WITH THAT OF STD. SOLNS. (07722): AUTOMATED. NOTE: CODE NO. REQUESTED BY WQB, VANCOUVER, APRIL 1974.
316	PARTICULATE NITROGEN IS GIVEN BY TOTAL NITROGEN - DISSOLVED NITROGEN REQ'D BY: WQB, CALGARY, OCT. 1980.
318	THERMAL CONDUCTIVITY METHOD. THE SAMPLE IS PASSED THROUGH A PREIGNITED WHATMAN GF/C FILTER. THE FILTER CONTAINING THE RESIDUE IS DRIED, PUT IN A TIN CRUCIBLE AND INTRODUCED IN A COMBUSTION TUBE (1050 DEG C). THE RESULTING OXIDES OF NITROGEN ARE REDUCED TO NITROGEN WICH IS MEASURED BY THERMAL CONDUCTANCE AND COMPARED WITH A BLANK AND A STD. A CARLO ERBA 1106 CHN ANALYZER IS USED. REQ'D BY WATER ANALYSIS & RESEARCH SECTION, ALBERTA ENVIRONMENTAL CENTRE, AUGUST 1981.
320	CALCULATED FROM DISSOLVED OXYGEN CONCENTRATION AT THE TEMPERATURE AND DEPTH OF SAMPLING.
321	DO % SATURATION = 100(O2/C) WHERE C = 14.161 - 0.3943(T) + 0.00714(T**2) - 0.0000646(T**3) T IS TEMPERATURE IF EITHER TEMPERATURE OR OXYGEN ARE MISSING THE CALCULATION IS NOT DONE REF: RIVER POLLUTION. I CHEMICAL ANALYSIS (P.108) 1955 KLEIN, L. BUTTLERWORTH SCIENTIFIC PUBLICATIONS LONDON REQUESTED BY WQB MONCTON DEC.1975.
324	WINKLER METHOD (AZIDE MODIFICATION). A MNSO4 SOLN. AND A SOLN. OF NAN3, NAI AND NAOH ARE ADDED TO THE SAMPLE, WHICH IS SHAKEN AND LEFT 1 HR. AFTER THIS A KF SOLN. SHOULD BE ADDED, IF FERROUS ION IS PRESENT. THE SAMPLE IS ACIDIFIED WITH CONCD. H2SO4, THEN TITRATED WITH A STD. NA2S2O3 SOLN. STARCH INDICATOR IS USED. INTERFERENCES : FERROUS ION AT 1 MG/L (IF KF IS ADDED THE INTERFERENCE LEVEL FOR FERROUS ION IS 100-200 MG/L), SO3 ION, S2O3 ION, POLYTHIONATE IONS, FREE CL2, OCL ION, OXIDIZING AND REDUCING AGENTS, AND TURBIDITY. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
325	MEASUREMENT MADE USING DISSOLVED OXYGEN METER.
326	' HACH FIELD KIT ' TWO REAGENT PILLOWS ARE ADDED TO AN ALIQUOT, SHAKEN AND SETTLED FOR 10 MIN. OR UNTIL FLOCCULANT SETTLES HALF WAY. REAGENT 3 IS ADDED, STIRRED AND AN ALIQUOT IS TITRATED WITH REAGENT 4.FOR DISSOLVED, THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. REQ'D BY: IJC,PLUARG,TASK 'C',AGRICULTURAL WATERSHEDS STUDY.
327	MEASUREMENT TAKEN DURING A DISSOLVED OXYGEN STRATIFICATION, AT THE DEPTH OF SAMPLING. REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
329	PERMANGANATE METHOD. REQ'D BY: GLOWDAT, DEC. 1979. OXYGEN BIOCHEM. DEMAND-BOD O2 MG/L
330	WINKLER METHOD (AZIDE MODIFICATION) ON THE INCUBATED SAMPLE. IF THE SAMPLE CONTAINS RESIDUAL CL2, WHICH DOES NOT DISSIPATE, IT IS NEUTRALIZED TO PH=7, AND TITRATED WITH NA2S2O3 SOLN. IF THE SAMPLE CONTAINS SYNTHETIC ORG. COMPDS., IT IS DILD., THEN SEEDED WITH MICROORGANISMS. ALIQUOTS OF THE SAM-

METHOD CODE	DESCRIPTION
330	PLE ARE NEUTRALIZED, SATD. WITH O2 BY AERATION, SHAKEN TO AVOID SUPERSATURATION, AND INCUBATED AT 20 DEG.C., AFTER 15 MIN, ONE ALIQUOT IS REMOVED AND ITS DISSOLVED O2 MEASURED. THIS IS ASSUMED TO ALLOW FOR THE O2 DEMAND OF FERROUS, SULPHIDE, AND SO3 IONS. AFTER 5 DAYS, ANOTHER ALIQUOT IS REMOVED, AND ITS DISSOLVED O2 MEASURED. THE DIFFERENCE GIVES THE BOD, WHICH IS COR. FOR SEEDING AND DILN., IF DONE. IF THE BOD IS MORE THAN 7 MG/L, THE ORIGINAL SAMPLE IS DILD. AND THE PROCESS REPEATED. THE DISSOLVED O2 IS MEASURED BY THE WINKLER METHOD (AZIDE MODIFICATION). A MNSO4 SOLN. AND A SOLN. OF NAN3,NAI AND NAOH ARE ADDED TO THE ALIQUOT, WHICH IS SHAKEN AND LEFT 1 HR. THE ALIQUOT IS THEN ACIDIFIED WITH CONCD. H2SO4 AND TITRATED WITH STD. NA2S2O3 SOLN. A STARCH INDICATOR IS USED. INTERFERENCES : FERROUS, SULPHIDE AND SO3 IONS, CL2 RESIDUES, AND SYNTHETIC ORG. COMPDS. THESE SHOULD BE ELIMINATED BY THE METHOD. FOR DISSOLVED THE SAMPLE IS PASSED THROUGH A 0.45 MICRON MEMBRANE FILTER. (WATER QUALITY BRANCH, BURLINGTON). ENVIRONMENT CANADA, OTTAWA, 1974. *FOR 08211, THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. NOTE: CODE NO. REQ'D BY DEPT. OF FISH. AND ENVIRONMENT, FREDERICTION, NEW BRUNSWICK, MARCH 1974.
331	BOD IS A MEASURE OF THE OXYGEN DEMAND PRODUCED BY CARBONACEOUS AND NITROGENOUS MATERIALS IN THE SAMPLE. IT IS MEASURED BY DETERMINING THE DECREASE IN DISSOLVED OXYGEN CONTENT USING A DISSOLVED OXYGEN METER AFTER INCUBATION AT 20 DEG.C. FOR 5 DAYS. FOR DISSOLVED, THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. (08214 & 08216) SAMPLE IS PASSED THROUGH A 1.2 G.F.C. FILTER. - BOD 5 - 5 DAYS INCUBATION PERIOD. - BOD 10 - 10 DAYS INCUBATION PERIOD. - BOD 14 - 14 DAYS INCUBATION PREIOD. CARBONACEOUS OXYGEN DEMAND : THE SAMPLE IS TREATED WITH 2-CHLORO-6 (TRICHLOROMETHYL) PYRIDINE TO INHIBIT NITRIFICATION. REF : STANDARD METHODS, 14TH ED., 422F AND 507. REQ'D BY : EPS ONT. REGION LABORATORY SERVICES, JULY 1978.
343	K2CR2O7 METHOD. IF CL ION IS PRESENT, 10 PARTS HGSO4 ARE ADDED FOR EACH PART OF CL ION, BY WT., TO AN ALIQUOT OF THE SHAKEN SAMPLE. IF NO2 ION IS PRESENT, 10 PARTS SULPHAMIC ACID ARE ADDED FOR EACH PART OF NITRITE N, BY WT., TO THE ALIQUOT. K2CR2O7 SOLN., AGSO4, AND CONCD. H2SO4 ARE ADDED TO THE ALIQUOT, WHICH IS HEATED UNDER REFLUX 2 HR. THE COOLED MIXT. IS THEN TITRATED WITH A STD. FE(NH4)2(SO4)2 SOLN. TO FIND THE UNREACTED K2CR2O7. A FERROIN (A COMPLEX OF FERROUS ION AND 1,10-PHENANTHROLINE) INDICATOR IS USED. A REAGENT BLANK IS IDENTICALLY TREATED. THE CHEM. O2 DEMAND IS FOUND BY DIFFERENCE BETWEEN SAMPLE AND BLANK ALIQUOTS. INTERFERENCES: CL AND NO2 IONS. FOR DISSOLVED : IF TURBID, THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974. *SAME METHODOLOGY FOR 08302 EXCEPT DETECTION LIMIT IS 4 MG/L. DICHROMATE REFLUX METHOD. STD. REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
345	COD IS A MEASURE OF THE OXYGEN EQUIVALENT OF THE ORGANIC MATTER IN A SAMPLE THAT CAN BE OXIDISED BY HEATING WITH POTASSIUM DICHROMATE. THE SAMPLE IS HEATED AT 150 C IN A CLOSED TUBE WITH A KNOWN AMOUNT OF POTASSIUM DICHROMATE AND SULPHURIC ACID. THE CONSUMPTION OF DICHROMATE IS DETERMINED BY MEASURING THE INCREASE IN THE REDUCED CHROMIUM ION (CO+++) COLORIMETRICALLY USING AN AUTOMATED SYSTEM. REF: A. JIRKA AND M. CARTER, MICRO SEMI-AUTOMATED ANALYSIS FOR CHEMICAL OXYGEN, DEMAND, ANALYTICAL CHEMISTRY 47 1397-1402, (1975) REQ'D BY: EPS ONT. REGION LABORATORY SERVICES, JULY, 1978.
346	SEMI-AUTOMATED COLOURIMETRIC. SAMPLE IS REACTED WITH SULPHURIC ACID-SILVER SULPHATE AND STANDARD POTASSIUM DICHROMATE IN TEFLON CAPPED CULTURE TUBES, HEATED FOR 2 HOURS AT 150C, AND THEN MEASURED ON AN AUTOMATED SYSTEM AT 600 NM. DETECTION LIMIT IS 5 MG/L. REF: METHODS MANUAL, POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMEN, EDMONTON, 1978. NOTE: CODE REQUESTED BY POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT, SEP., 1978.

ENVIRODAT/NAQUADAT METHOD CODES AND DESCRIPTIONS

METHOD CODE	DESCRIPTION
346	OXYGEN TOTAL COD O2 KG/DAY
347	CALCULATED LOADING FROM CONCENTRATION (MG/L) AND FLOW (CFS) REQUESTED BY SYSTEMS & COMPUTING BRANCH ALBERTA ENVIRONMENT MARCH 1975.
349	KMNO4 METHOD. THE SAMPLE IS ACIDIFIED WITH DIL. H2SO4, KMNO4 SOLN. IS ADDED. THE SOLN. IS THEN DIGESTED 30 MIN ON A BOILING WATER BATH. AN OXALIC ACID SOLN. EQUIV. TO THE ORIGINAL KMNO4 SOLN. IS ADDED TO THE MIXT. AT 70 DEG.C. THE EXCESS OXALIC ACID IS TITRATED WITH STD. KMNO4 SOLN. AT 60 DEG.C. A REAGENT BLANK IS IDENTICALLY TREATED. THE CONSUMED O2 IS FOUND BY DIFFERENCE BETWEEN SAMPLE AND BLANK ALIQUOTS. INTERFERENCES: CL ION CONCN. OF 1 G/L. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
350	PERMANGANATE METHOD. FOR CONSUMED, THE SAMPLE IS DIGESTED FOR 4 HOURS. REQ'D BY : GLOWDAT , DEC. 1979.
351	CALCD. FROM THE VALUES OF TOTAL ALKALINITY AND PHENOL PHTHALEIN ALKALINITY IF PA=0 THEN OH=0 IF PA>TA/2 THEN OH=(2*PA-TA)*0.3399 IF PA<=TA/2 THEN OH=0
352	VISUAL COLOURIMETRIC DETN. WITH ZIRCONYL ALIZARIN REAGENT.
353	COLOURIMETRIC DETN. WITH SPADNS.
354	COLOURIMETRIC DETN. WITH SPADNS ON AN AUTOANALYZER.
355	COLORIMETRIC ON AUTOANALYZER WITH SPADNS AFTER DISTILLATION. CAUTION: IN SEAWATER THERE MAY BE SIGNIFICANT INTERFERENCE FROM MG OR PH. REF: BREWER ET. AL., DEEP-SEA RESEARCH, VOL. 17, PP. 1-7 (1970).
356	SPECIFIC ION ELECTRODE. A SAMPLE ALIQUOT IS MIXED WITH A TOTAL IONIC STRENGTH ADJUSTMENT BUFFER SOLN. (A SOLN. OF CH3CO2H, NACL, NAOH, AND CYCLOHEXANEDIAMINE TETRAACETIC ACID BUFFERED AT PH=5.8). AN IDENTICALLY PREPD. SERIES OF STD. F ION SOLNS. ARE USED TO CALIBRATE THE SPECIFIC ION METER. THE F ION CONCN. OF THE SAMPLE IS THEN READ DIRECTLY AND CORRECTED TO 25 DEG.C. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
358	AUTOMATED POTENTIOMETRIC METHOD. FLUORIDE IS DETERMINED POTENTIOMETRICALLY IN A FLOW-THROUGH SYSTEM USING A SPECIFIC ION COMBINATION ELECTRODE AND A DIGITAL MILLIVOLTMETER. A STRIP CHART RECORDER AND A PRINTER PROVIDE CONTINOUS MONITORING OF THE ELECTRODE OUTPUT AND AUTOMATIC PRINTOUT OF THE POTENTIAL AT OPTIMUM PEAK HEIGHTS.(09108) FILTRATION. REQ'D BY: WQB, MONCTON, AUGUST 1979. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1979. NOTE: CODE ALSO DESIGNATES AUTOMATED ISE METHOD W118-70 (JULY, 1974) POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT, EDMONTON.
360	PHOTOMETRIC METHOD (LA-ALIZARIN COMPLEX). REQ'D BY: GEMS-GLOWDAT, CCIW, SEPT. 1980.
361	PHOTOMETRIC METHOD USING AUTOANALYZER REF: TECHNICON INDUSTRIAL METHOD 192-71W REQ'D BY: WQB, BURLINGTON, JAN. 1986
362	THE SAMPLE IS ANALYSED BY SINGLE COLUMN ION CHROMATOGRAPHY USING AN ELUANT OF 5 MM P-HYDROXY-BENZOIC ACID BUFFERED AT PH 8.4. REQUESTED BY THE WASTE WATER TECHNOLOGY CENTER, (INORGANIC CHEMISTRY SECTION) BURLINGTON, ONTARIO, JUNE 1988.
363	POTENTIOMETRIC TITRN. IF TURBID, THE SAMPLE IS ALLOWED TO SETTLE. AN ALIQUOT OF THE SAMPLE IS THEN TITRATED WITH STD. H2SO4 OR HCL, TO PH=4.5 THEN TO PH=4.2. THE TOTAL ALKALINITY

METHOD CODE	DESCRIPTION
363	IS FOUND FROM BOTH TITRATION VOLS. AN AUTOMATIC TITRN SYSTEM AND A PH METER ARE USED. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
364	TITRN. TO METHYL PURPLE END POINT. IF TURBID, THE SAMPLE IS ALLOWED TO SETTLE. AN ALIQUOT OF THE SAMPLE IS TITRATED WITH STD. H2SO4 OR HCL TO THE METHYL PURPLE END POINT (PH=4.8-5.4), METHYL PURPLE INDICATOR IS USED, TOGETHER WITH A BLUE WATER SOLUBLE DYE, TO SHARPEN THE END POINT. REF.: 1971 ANNUAL BOOK OF ASTM STDS., PART 23, P 136.
365	TITRN. TO BROMCRESOL GREEN-METHYL RED END POINT. IF TURBID, THE SAMPLE IS ALLOWED TO SETTLE. AN ALIQUOT IS THEN TITRATED WITH STD. H2SO4 OR HCL SOLN. TO THE MIXED INDICATOR END POINT (PH=4.6-5.2). REF.: STD. METHODS FOR THE EXAMN. OF WATER AND WASTEWATER, AMERICAN PUBLIC HEALTH ASSOCN., 13TH EDITION, 1971, P. 54.
366	METHYL ORANGE AUTOANALYSER (TF-KN). THE SAMPLE IS MIXED AUTOMATICALLY WITH A BUFFERED METHYL-ORANGE SOLUTION OF PH ABOUT 3.0. THEN THE REDUCTION OF THE RED COLOUR IS MEASURED AT 550 MU. (10105) FILTRATION. NOTE: CODE REQUESTED BY WQB, BURLINGTON, SEPT. 1975.
368	IF TURBID, THE SAMPLE IS ALLOWED TO SETTLE. IN AN AUTOMATED SYSTEM AN ALIQUOT OF SAMPLE IS ACIDIFIED WITH HCL. OXYGEN IS INTRODUCED; THE RESULTING CO2 IS SEPARATED FROM THE LIQUID PHASE AND DETERMINED IN AN IR DETECTOR. NOTE: PARAMETER CODE NO. REQUESTED BY WATER QUALITY BRANCH, CCIW, BURLINGTON, MAY 1976.
369	A SUITABLE ALIQUOT OF THE SAMPLE IS TITRATED WITH STANDARD ACID SOLUTION TO PH4. EXCESS CO2 FORMED IS REMOVED BY BUBBLING AIR THROUGH THE SAMPLE. THIS IS FOLLOWED BY TITRATING BACK UP TO PH 5.6 WITH STANDARD NAOH OR KOH SOLUTION. THE VOLUME OF ACID AND ALKALI USED IN EACH CASE IS RECORDED. THE DIFFERENCE BETWEEN THE ACID AND ALKALI VOLUMES IS AN INDICATION OF THE ALKALINITY. IF THE DIFFERENCE IS NEGATIVE, IE MORE ALKALI THAN ACID HAS BEEN ADDED, THE RESULT IS EXPRESSED AS ACIDITY. REF: WMO OPERATIONS MANUAL FOR SAMPLING AND ANALYSIS TECHNIQUES FOR CHEMICAL CONSTITUENTS IN AIR AND PRECIPITATION; PART 1, SECTION 3, WMO- NO. 299, SECRETARIAT OF THE WORLD METEOROLOGICAL ORGANISATION, GENEVA, SWITZERLAND, 1974. REQ'D BY: WATER QUALITY BRANCH, BURLINGTON, NOV. 1976
370	POTENTIOMETRIC TITRATION TO A PRESELECTED PH. IF TURBID, THE SAMPLE IS ALLOWED TO SETTLE. AN ALIQUOT OF THE SAMPLE IS TITRATED WITH A STANDARD 0.02 N H2SO4 SOLUTION TO A PRE-SELECTED END POINT PH OF 5.1 FOR ALKALINITIES IN THE RANGE 0 - 30 MG/L CACO3, 4.8 FOR ALKALINITIES IN THE RANGE 30-150 MG/L, AND 4.5 FOR ALKALINITIES IN THE RANGE 150 - 500 MG/L. A STANDARD 20 ML LABORATORY BURETTE AND A PH METER ARE USED, EXCEPT IN THE CASE OF ALKALINITIES LESS THAN 20 MG/L CACO3, WHERE A 10 ML MICROBURETTE IS USED. REF: STD. METHODS FOR THE EXAMIN. OF WATER AND WASTEWATER, REQ'D BY: WATER QUALITY BRANCH, MONCTON, DEC. 1976 AMERICAN PUBLIC HEALTH ASSOC., 14TH EDITION, P.278, 1975.
372	GRAN TITRATION. TAKE 100 ML OF SAMPLE, ADD 0.25 ML 1 N KCL THEN TITRATE TO PH 3.7 WITH .001N HCL. A RADIOMETER PH METER, AUTOBURETTE AND PRINTER RECORD THE INCREMENTAL VOLUMES ADDED TOGETHER WITH THE CORRESPONDING PH. THE VOLUME CORRECTED H+ CONCENTRATION (GRAN FUNCTION, ANALYST 77, 661 (1952)) IS PLOTTED VS. THE VOLUME OF ADDED ACID. THE ALKALINITY IS DETERMINED FROM EXTRAPOLATION OF THE LINEAR PORTION OF THE CURVE ON THE ABSCISSA. THE RESULTS OF THIS TITRATION WHICH IS SUITABLE ONLY FOR VERY "SOFT" WATERS MAY BE EITHER POSITIVE OR NEGATIVE. REQ'D BY: WATER QUALITY BRANCH, MONCTON, AUG. 1980
373	TITROPROCESSOR. A 50 ML SAMPLE IS TITRATED WITH 0.01N H2SO4. THE INFLECTION POINT IS DETECTED AUTOMATICALLY. REQ'D BY: WATER QUALITY BRANCH, BURLINGTON, APRIL 1981.
374	TITRATION BY HNO3. THE EQUIVALENCE POINT IS DETERMINED BY

METHOD CODE	DESCRIPTION
374	ELECTRICAL CONDUCTIVITY. REF: ENVIRONMENT QUEBEC, BQMA CODE 100437 REQ"D BY: NWRI, BURLINGTON, MARCH, 1986
376	VISUAL TITRATION. REQ'D BY: GEMS-GLOWDAT, CCIW, SEPT. 1980.
377	ELECTROMETRIC TITRATION. REQ'D BY: GEMS-GLOWDAT, CCIW, SEPT. 1980.
378	TITRATION TO BDH4.5 INDICATOR END POINT. FIELD MEASUREMENT. AN ALIQUOT IS TITRATED WITH STANDARD HCL TO THE BDH4.5 INDICATOR END POINT (PH=4.5). REF: MACKERETH, F.J.H. 1963. SOME METHODS OF WATER ANALYSIS FOR LIMNOLOGISTS. FRESH BIOLOGY ASSOC. PUB. #21. REQ'D BY: ALBERTA ENVIRONMENT, FEB. 1981.
379	POTENTIOMETRIC TITRN. IF TURBID, THE SAMPLE IS ALLOWED TO SETTLE. AN ALIQUOT OF THE SAMPLE IS TITRATED WITH STD, H2SO4 OR HCL TO PH=8.3. AN AUTOMATIC TITRN. SYSTEM AND A PH METER ARE USED. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
380	TOTAL ALCALINITY TITRATION USING NITRIC ACID. THE EQUIVALENCY POINT OF THE ACID-BASE IS CHARACTERIZED BY THE INFLEXION POINT ON THE RECORDING OF THE ELECTRICAL CONDUCTIVITY CURVE REF: ENVIRONMENT QUEBEC, 1988
381	POTENTIOMETRIC TITRN. IF TURBID, THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. A FILTRATE ALIQUOT IS TITRATED TO PH=4.5 WITH STD. NAOH. A PH METER IS USED. THE REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
382	THE SAMPLE IS TITRATED TO A PH OF 4.0 AND AIR IS THEN BUBBLED THROUGH TO REMOVE CO2 FORMED FROM CO3 AND HCO3 ON ACIDIFICATION. ALKALINE TITRATION IS CARRIED OUT TO PH 5.6, THE EXPECTED PH OF DISTILLED WATER IN EQUILIBRIUM WITH ATMOSPHERIC CO2. A NEGATIVE RESULT IS A MEASURE OF ALKALINITY. (10211) FILTRATION. REF: WMO BULLETIN NO. 299 - OPERATIONS MANUAL FOR SAMPLING AND ANALYTICAL TECHNIQUES FOR CHEMICAL CONCENTRATION IN AIR AND PRECIPITATION. REQ'D BY: WATER QUALITY BRANCH, BURLINGTON, JULY 1976
384	POTENTIOMETRIC TITRN. IF TURBID, THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. A FILTRATE ALIQUOT IS TITRATED TO PH=8.3 WITH STD. NAOH. A PH METER IS USED. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
385	TITROPROCESSOR. A 50 ML SAMPLE IS TITRATED WITH 0.01 N NAOH. THE INFLECTION POINT IS DETECTED AUTOMATICALLY. REQ'D BY: WATER QUALITY BRANCH, BURLINGTON, APRIL 1981.
386	ACIDITY IS CALCULATED BY PLOTTING PH VALUES OF SAMPLES (PH/ACIDITY) CURVE OBTAINED FROM OVER 200 RAIN SAMPLES PREVIOUSLY TITRATED USING A TITROPROCESSOR, METHOD 10252. REQ'D BY: WQB, BURLINGTON, JULY 1983.
387	ACIDITY TITRATION USING SODIUM HYDROXIDE. THE ACID-BASE EQUIVALENCY POINT IS CHARACTERIZED BY THE INFLEXION POINT ON THE RECORDING OF THE ELECTRICAL CONDUCTIVITY CURVE REQUIRED BY ENVIRONMENT QUEBEC
388	COLORIMETRIC METHOD. REQ'D BY: GEMS-GLOWDAT, CCIW, SEPT. 1980.
389	ELECTROMETRIC METHOD. THE PH OF THE SAMPLE IS MEASURED USING A PH METER WHICH HAS BEEN CALIBRATED WITH STD. PH BUFFER SOLNS. GLASS AND CALOMEL (HG2CL2) ELECTRODES ARE USED. INTERFERENCES: HIGH NA ION CONCNS. WHEN PH GREATER THAN 10. (10302): MEASUREMENT TAKEN At 25 C. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA,1974.

ENVIRODAT/NAQUADAT METHOD CODES AND DESCRIPTIONS

METHOD CODE	DESCRIPTION
392	PH IS MEASURED WITH THE SAMPLE AND ELECTRODE IN A CLOSED CONTAINER TO PREVENT ATMOSPHERIC CO2 EXCHANGE.. REQ'D BY: FWI/ELA FIELD LAB, AUGUST 1984.
393	COMBINATION GLASS ELECTRODE (METROHM) INSERTED AT LEAST 2 CM BELOW SEDIMENT SURFACE.
394	REQ'D BY: WQB OTTAWA AUG. 1977. PH THEORETICAL ERROR (CALCD.) %
395	THE PERCENTAGE ERROR IS CALCULATED BY THE FORMULA % ERROR = MEASURED PH/THEORETICAL PH * 100 REQ'D BY: WQB OTTAWA AUG. 1977.
396	GRAVIMETRIC METHOD. IF OIL AND GREASE ARE PRESENT, THE SAMPLE IS BLENDED. IF LARGE PARTICLES, EITHER FLOATING OR SUBMERGED, ARE PRESENT, THEY ARE EXCLUDED FROM THE SAMPLE. A SAMPLE ALIQUOT IS PASSED THROUGH A PREIGNITED WHATMAN GF/C FILTER. THE FILTER CONTG. THE RESIDUE IS PLACED IN A PORCELAIN DISH, OVEN-DRIED AT 105 DEG.C. FOR 2.5 HR, COOLED 15 MIN IN A DESICCATOR, AND WEIGHED. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
397	SAMPLE IS PASSED THROUGH A WEIGHED GOOCH CRUCIBLE WITH AN ASBESTOS MAT. THE CRUCIBLE WITH ITS CONTENTS IS DRIED IN AN OVEN AT 103-105 DEG.C. THE INCREASE IN WEIGHT OVER THAT OF THE GOOCH CRUCIBLE AND ASBESTOS MAT REPRESENTS THE NONFILTERABLE RESIDUE (SUSPENDED MATTER).
398	AN ALIQUOT FROM THE SHAKEN SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. THE FILTER AND THE RESIDUE ARE DRIED OVER SILICA GEL FOR 24 HR. THE INCREASE IN WEIGHT OF THE FILTER WITH RESIDUE OVER THAT OF THE DRIED FILTER REPRESENTS THE NONFILTERABLE RESIDUE (SUSPENDED SOLIDS). REF: R. GAMBLE, STD. LAB. PROCEDURES, DEPT. OF FISHERIES AND ENVIRONMENT, NEW BRUNSWICK. NOTE: PARAMETER CODE NO. REQUESTED BY DEPT. OF FISHERIES AND ENVIRONMENT, ENVIRONMENTAL SERVICES, FREDERICTON, NEW BRUNSWICK, NOV. 1973.
399	THE SAMPLE IS CENTRIFUGED AT 15000 RPM. THE DIFFERENCE IN THE WT. OF THE DRIED (110 DEG.C.) CENTRIFUGE TUBE CONTAINING THE SAMPLE AND THE WT OF THE EMPTY TUBE IS THE SOUGHT VALUE. NOTE: CODE NO. REQUESTED BY FRESHWATER INST., WINNIPEG.
401	TOTAL SUSPENDED SOLIDS. GRAVIMETRIC METHOD WITH WHATMAN GF/C FIBERGLASS FILTERS USING MILLIPORE APPARATUS (5.5 CM DIA., 5 UM FILTER). DRY AT 110 DEG.C FOR 1 HR. DESSICATE AND WEIGH STD. METHOD 208C. REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
402	GRAVIMETRIC MICRO-METHOD. SAMPLE IS HOMOGENIZED AND AN ALIQUOT FILTERED THROUGH A PREWEIGHED .45 U FILTER. THE FILTER IS DRIED FOR 1/2 HOUR AT 105 C AND THEN WEIGHED TO A CONSTANT WEIGHT. REQ'D BY: ALBERTA ENVIRONMENT, POLLUTION CONTROL LABORATORY FEB, 1979.
403	GRAVIMETRIC METHOD. REQ'D BY: GEMS-GLOWDAT, CCIW, SEPT. 1980.
404	GRAVIMETRIC METHOD. IF OIL AND GREASE ARE PRESENT, THE SAMPLE IS BLENDED. A SAMPLE ALIQUOT IS PASSED THROUGH A WHATMAN GF/C FILTER OR THROUGH A 0.45 U MEMBRANE FILTER. THE FILTRATE IS EVAPD. TO DRYNESS IN A PREIGNITED PT DISH. THE DISH CONTG. THE RESIDUE IS OVEN-DRIED OVERNIGHT AT 105 DEG.C., COOLED 15 MIN. IN A DESICCATOR, AND WEIGHED TO CONST. WT. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
406	GRAVIMETRIC MICRO-METHOD. SAMPLE IS HOMOGENIZED AND FILTERED THROUGH A .45 U FILTER. AN ALIQUOT OF THE FILTRATE IS TRANSFERRED TO A PREWEIGHED 12 MM ALUMINUM PAN. THE SAMPLE IS EVAPORATED AT 105 C AND THEN WEIGHED TO A CONSTANT WEIGHT. FOR TOTAL : NO FILTRATION. REQ'D BY: ALBERTA ENVIRONMENT, POLLUTION CONTROL LABORATORY

METHOD CODE	DESCRIPTION
406	FEB, 1979.
407	THE SHAKEN SAMPLE IS EVAPORATED IN A WEIGHED PT DISH OR CRUCIBLE, OVEN DRIED AT 103-105 DEG.C., DESICCATED TO A CONSTANT WT. AND WEIGHED.
408	SHAKEN SAMPLE IS DETERMINED ON MEMBRANE FILTER.
410	PARAMETER CALCULATED FROM THE VALUES OF RESIDUE FILTERABLE AND RESIDUE NON-FILTERABLE. REQ'D BY: ALBERTA ENVIRONMENT, POLLUTION CONTROL LABORATORY FEB, 1979.
411	GRAVIMETRIC METHOD. IF OIL AND GREASE ARE PRESENT, THE SAMPLE IS BLENDED. IF LARGE PARTICLES, EITHER FLOATING OR SUBMERGED, ARE PRESENT, THEY ARE EXCLUDED FROM THE SAMPLE. A SAMPLE ALIQUOT IS PASSED THROUGH A PREIGNITED WHATMAN GF/C FILTER. THE FILTER CONTG. THE RESIDUE IS PLACED IN A PORCELAIN DISH, IGNITED IN A MUFFLE FURNACE AT 550 DEG.C. FOR 30 MIN, COOLED IN A DESICCATOR, AND WEIGHED. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
412	THE GOOCH CRUCIBLE WITH ASBESTOS MAT AND RESIDUE AFTER COMPLETION OF THE TEST FOR 'RESIDUE NONFILTERABLE' (SUSPENDED MATTER IS IGNITED AT 550 DEG.C. FOR 30 MIN. THE INCREASE IN WEIGHT OVER THAT OF THE GOOCH CRUCIBLE AND ASBESTOS MAT REPRESENTS 'RESIDUE FIXED NONFILTERABLE' (SUSPENDED MATTER IGNITED).
413	THE DISH OR CRUCIBLE WITH ASBESTOS MAT AFTER COMPLETION OF THE TEST FOR RESIDUE NONFILTERABLE IS IGNITED AT 600 DEG.C. FOR 20 MIN. THE INCREASE IN WEIGHT OVER THAT OF THE DISH AND MAT REPRESENTS RESIDUE FIXED NONFILTERABLE.
414	IGNITE IN A MUFFLE FURNACE AT 550 DEG. C FOR 20 MIN, COOL IN A DESSICATOR AND WEIGH. STD. METHOD 208E. REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
415	CALCD. - WT. LOSS ON IGNITION OF NONFILTERABLE RESIDUE. DIFFERENCE BETWEEN NONFILTERABLE RESIDUE AND FIXED NONFILTERABLE RESIDUE.
416	1-2 MICRON GLASS FILTER AND CRUCIBLE ARE DRIED AT 103 DEG.C AND WIEGHED. SAMPLE ALIQUOT IS FILT. AND FILTER AND CRUCIBLE ARE DRIED AND WIEGHED. FILT. PAPER IS BURNT AT 550 DEG.C AND COOLED THEN WIEGHED.THE FINAL WIEGHT MINUS THE INTERMEDIATE WIEGHT WILL EQUAL VOLATILE SUSPENDED SOLIDS. REQ'D BY: IJC,PLUARG,TASK 'C', AGRICULTURAL WATERSHEDS STUDY
417	CALCULATED - WEIGHT LOSS ON IGNITION OF TOTAL RESIDUE. DIFFERENCE BETWEEN TOTAL RESIDUE AND FIXED TOTAL RESIDUE.
418	TOTAL VOLATILE SOLIDS CALCULATED BY WEIGHT LOSS ON EVAPORATION. REQ'D BY: RIDEAU RIVER SWMS, APRIL 1981.
419	THE WEIGHT LOSS ON IGNITION IN A MUFFLE FURNACE OF THE DRIED RESIDUE OF FILTERABLE SUSPENDED SOLIDS. REF: GEMS/WATER OPERATIONAL GUIDE, WHO GENEVA, 1978. REQ'D BY: WQB, OTTAWA, OCT. 1979.
420	GRAVIMETRIC METHOD. IF OIL AND GREASE ARE PRESENT, THE SAMPLE IS BLENDED. A SAMPLE ALIQUOT IS PASSED THROUGH A PREIGNITED WHATMAN GF/C FILTER. THE FILTRATE IS EVAPD. IN A PREIGNITED PT DISH. THE DISH IS IGNITED IN A MUFFLE FURNACE AT 550 DEG.C. FOR 30 MIN, COOLED IN A DESICCATOR, AND WEIGHED. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
421	THE DISH OR CRUCIBLE WITH RETAINED RESIDUE FROM TEST FOR TOTAL RESIDUE IS IGNITED AT 550 DEG.C. FOR 30 MINUTES IN A FURNACE. INCREASE IN WEIGHT OVER THAT OF THE IGNITED EMPTY DISH OR CRUCIBLE REPRESENTS FIXED TOTAL RESIDUE.
422	CALCN. FROM CONCNS. OF HARDNESS PRODUCING CATIONS TH = CA*2.497 + MG*4.117 + AL*3.710 + MN*1.820 + FE*1.791 + CU*1.572 + ZN*1.529 + SR*1.141

METHOD CODE	DESCRIPTION
422	+ BA*0.727 + PB*0.484 THIS CALCN. IS USED WHEN HARDNESS PRODUCING CATIONS OTHER THAN CA AND MG ARE PRESENT IN SIGNIFICANT AMOUNTS. IF ONLY CA AND MG ARE PRESENT, THIS PARAMETER BECOMES IDENTICAL TO PARAMETER 10602L. CA AND MG MUST BE PRESENT, THE OTHER IONS CONTRIBUTE ADDITIVELY IF THEY ARE THERE.
423	CALCD. FROM CONCNS. OF CA AND MG DISSOLVED. TH = CA*2.497 + MG*4.117
424	EDTA TITRN. IF TURBID, THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. THE PH OF A SAMPLE ALIQUOT IS ADJUSTED TO 10.1-10.2, WITH A BUFFER SOLN. (NH4CL, NH4OH, AND MG EDTA SALT). THIS ALIQUOT IS TITRATED WITH A STD. EDTA (DISODIUM DIHYDROGEN ETHYLENEDIAMINE TETRAACETATE) SOLN. ERIOCHROME BLACK T (SODIUM 3-HYDROXY-4-((1-HYDROXY-2-NAPHTHYL) AZO)-7-NITRO-1-NAPHTHALENESULPHONATE) INDICATOR IS USED. INTERFERENCE: TOTAL HEAVY METAL ION CONCN. OF 0.5 MG/L. IF THESE ARE PRESENT, HARDNESS IS CALCD. FROM CONCNS. OF HARDNESS PRODUCING CATIONS.(10605) USE UNIVER I AS INDICATOR. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
425	AUTOANALYZER USING EDTA AND CALMAGITE.
428	NON-CARBONATE HARDNESS = TOTAL HARDNESS - TOTAL ALKALINITY REQUESTED BY WATER QUALITY BRANCH - WESTERN REGION
429	METHYLENE BLUE ACTIVE SUBSTANCES DETERMINATION. FOR N-ALKYL TEST INCLUDES ALKYL ARYL SULPHONATES AND ALKYL SULPHATES USING LAS STANDARD.
431	REQ'D BY: DATA MANAGEMENT, CCIW FOR GLOWDAT, MAY 1980. NTA NITRILOTRI ACETIC AC. H3NTA MG/L
432	POLAROG. THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. TWO SAMPLE ALIQUOTS (25 ML) ARE ACIDIFIED WITH 1N HCL (BLANK-5.0 ML, TEST SAMPLE-4.5 ML), THEN HYDROXYLAMINE HYDROCHLORIDE (NH2OH.HCL) SOLN IS ADDED TO BOTH ALIQUOTS. BI(NO3)3 SOLN IN 1N HCL (0.5 ML) IS ADDED TO THE TEST SAMPLE ALIQUOT. THE PH OF THE ALIQUOTS IS ADJUSTED TO 1.95-2.05 WITH KOH. THE DEGASSED ALIQUOTS ARE THEN POLAROGRAPHED ON A TWO CELL DIFFERENTIAL CATHODE RAY POLAROGRAPH. THE NTA CONCN. IS CALCD. FROM THE DIFFERENCE IN CURRENT AT THE PEAK POTENTIAL (-0.32V). REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
433	GAS-LIQUID CHROMATOGRAPHY. WATER IS COLLECTED AND STORED IN GLASS OR LINEAR POLYETHYLENE CONTAINERS. IMMEDIATELY AFTER COLLECTION SAMPLES ARE PRESERVED WITH 5ML PER LITRE HCL AND THEN STORED AT 4 DEG.C UNTIL ANALYZED. A MEASURED VOLUME (USUALLY 200 ML) OF SAMPLE IS EVAPORATED TO DRYNESS. THE RESIDUE IS REACTED WITH A 1-PROPANOL-HCL SOLUTION AND THE NTA-TRIPROPYL ESTER IS EXTRACTED WITH METHYLENE CHLORIDE. FOLLOWING CLEAN-UP ON A SILICA GEL MICRO COLUMN THE TRIPROPYL ESTER OF NTA IS ANALYZED BY GLC. REQ'D BY: WQB BURLINGTON, FEB. 1978.
434	COLOURIMETRY. THE SAMPLE IS ACIDIFIED WITH 50% H2SO4, AND EXTD. 3 TIMES WITH PETROLEUM ETHER. THE COMBINED SOLVENT LAYERS ARE EVAPD. TO DRYNESS. THE RESIDUE IS DISSOLVED IN CHCL3, 65% H2SO4 THEN ACETIC ANHYDRIDE ADDED TO THE SHAKEN SOLN., AND THE ACID LAYER SEPARATED. THIS EXTN. IS REPEATED TWICE MORE. THE COMBINED ACID EXTS. ARE DILD. WITH 65% H2SO4 AND CENTRIFUGED. THE ABSORBANCE OF THE CLARIFIED ACID SOLN. IS MEASURED SPECTROPHOTOMETRICALLY AT 525 MU, AND COMPARED WITH THOSE OF IDENTICALLY PREPD. STD. ABIETIC ACID SOLNS., AND A REAGENT BLANK. REF: WQB, MONCTON.
435	CALCULATED LOADING FROM CONCN. (MG/L) AND FLOW (CFS).
436	BECKMAN INDUCTION SALINITY METER.
437	POTENTIOMETRIC TITRATION WITH SILVER NITRATE.
438	ATOMIC ABSORPTION SPECTROSCOPY.

METHOD CODE	DESCRIPTION
438	REQ'D BY: GEMS-GLOWDAT, CCIW, SEPT. 1980.
440	PLASMA EMISSION SPECTROSCOPY REQ'D BY: SASK, RESEARCH COUNCIL, FEB. 1984
441	THE SOLUTION CONTAINING THE METAL IS PREPARED BY CONCENTRATION IN AN AQUA REGIA/PEROXIDE MEDIUM FOLLOWED BY QUANTITATION ON A DIRECT CURRENT PLASMA EMISSION SPECTROMETER. THE MDL IS DEPENDENT UPON THE CONCENTRATION FACTOR (GENERALLAY 10X). REQ'D BY: THE WASTE WATER TECHNOLOGY CENTER, INORGANIC CHEMISTRY SECTION, BURLINGTON, ONTARIO, JUNE 1988.
444	ATOMIC ABSORPTION.
445	FLAME PHOTOMETRY WITH INTERNAL STD. ON AN AUTOANALYZER. IF HIGHLY TURBID, THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. A SAMPLE ALIQUOT IS THEN MIXED WITH A LINO3, 1% V/V H2SO4 SOLUTION. THIS SOLUTION IS ASPIRATED IN A FLAME PHOTOMETER. THE LIGHT EMISSION IS MEASURED AND COMPARED WITH THAT OF INTERNAL LI STD. AT 671 NM. THE FLAME PHOTOMETER IS CALIBRATED USING STD. NA SOLNS. WITH LI INTERNAL STDS. A'PROPANE AND AIR OR A NATURAL GAS-O2 FLAME IS USED. FOR DISSOLVED: FILTRATION. SODIUM: 589 MU. POTASSIUM: 768 MU. (19107): NO FILTRATION. NOTE: PARAMETER CODE REQUESTED BY WQB, VANCOUVER, MAY 25 1973 REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974. NOTE: IN THE CASE OF PRECIPITATION SAMPLES, A DECANTED ALIQUOT OF THE UNSHAKEN, UNFILTERED SAMPLE IS NORMALLY TAKEN FOR ANALYSIS. REF: WQB, NHRI, JULY, 1979.
448	A SAMPLE IS SPIKED TO CONTAIN 2000 MG LITHIUM PER LITRE AND RUN DIRECTLY BY ATOMIC ABSORPTION SPECTROSCOPY. REQ'D BY: IJC,PLUARG,TASK 'C',AGRICULTURAL WATERSHEDS STUDY.
451	ION CHROMATOGRAPHY. SAMPLE IS FILTERED THROUGH A 0.45 U FILTER BEFORE INJECTION. DETECTION IS BY CONDUCTIVITY. REQ"D BY EPS ST. JOHN"S NFLD.
453	SODIUM ADSORPTION RATIO, SAR, IS GIVEN BY SAR = 1.41*0.04350*NA/SQRT(A) WHERE A IS GIVEN BY IF TH(TOTAL HARDNESS) IS PRESENT A = 0.01988*TH IF TH IS NOT PRESENT A = 0.04990*CA + 0.08226*MG IF NA IS NOT PRESENT, OR A CANNOT BE CALCD. BECAUSE OF LACK OF SUFFICIENT PARAMETERS, SAR IS NOT CALCD.
454	THE SODIUM FRACTION OF THE MAJOR CATIONS IS GIVEN BY (NA = 0.435*NA/SUMCAT*100 WHERE SUMCAT = 0.0435*NA + 0.02557*K + 0.0499*CA + +0.08226*MG REQUESTED BY WATER QUALITY BRANCH - WESTERN REGION RESERVED FOR FUTURE USE
455	INDUCTIVELY COUPLED ARGON PLASMA SPECTROSCOPY (ICAP). THE SAMPLE IS ACIDIFIED WITH 5 ML 1:1 HNO3 PER LITRE, THE EMISSION MEASURED AT THE APPROPRIATE WAVE LENGTH AND COMPARED WITH THAT OF IDENTICALLY PREPARED STANDARD SOLUTIONS. SODIUM: 589.0 MU, MAGNESIUM: 279.5 MU, POTASSIUM: 766.5 MU, CALCIUM: 317.9 MU. REQ'D BY: WARD TECHNICAL SERVICES LAB, WINNIPEG, NOV. 1984.
457	SEDIMENT SAMPLE WAS FREEZE-DRIED, PULVERIZED TO ^100 MESH, AND PELLETIZED, AND THE PELLET WAS USED IN AN XRF SPECTROMETER. REF.@ MUDROCH, A. 1977. DETERMINATION OF MAJOR ELEMENTS IN LAKE AND RIVER BOTTOM SEDIMENTS BY PHILIPS P.W. 1220C X-RAY FLUORESCENCE SPECTROMETER. CCIW UNPUBLISHED REPORT.
458	COLOURIMETRY. REQ'D BY: GEMS-GLOWDAT, CCIW, SEPT. 1980.
459	ATOMIC ABSORPTION BY DIRECT ASPIRATION. THE SAMPLE IS DI-

ENVIRODAT/NAQUADAT METHOD CODES AND DESCRIPTIONS

METHOD CODE	DESCRIPTION
459	GESTED WITH HNO3. A SAMPLE ALIQUOT IS MIXED WITH A STD. LACL3 SOLN. THE SOLN. IS ASPIRATED. THE ABSORPTION IS MEASURED SPECTROPHOTOMETRICALLY, AND COMPARED WITH THOSE OF A REAGENT BLANK AND STD. SOLNS. AN ACETYLENE-AIR REDUCING FLAME IS USED. DISSOLVED: FILTRATION AND NO DIGESTION. EXTRACTABLE: NO DIGESTION. (12303): AUTOANALYSER. CALCIUM EXTRACTABLLE: HCL IS ADDED TO SAND BOTTLE BEFORE THE SAMPLE IS COLLECTED. MAGNESIUM: 285.2 MU. CALCIUM: 422.7 MU. NOTE: IN THE CASE OF PRECIPITATION SAMPLES, A DECANTED ALIQUOT OF THE UNSHAKEN, UNFILTERED SAMPLE IS NORMALLY TAKEN FOR ANALYSIS. REF: WQB, NHRI, JULY, 1979. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
460	EDTA TITRATION. REQ'D BY: GEMS-GLOWDAT, CCIW, MAY 1981.
463	CALCULATED FROM THE VALUES OF THE TOTAL HARDNESS (DETERMINED BY EDTA TITRATION) AND CALCIUM DISSOLVED MG = (TH*0.01998-CA*0.0499)*12.16
465	EDTA TITRN. IF TURBID, THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. THE PH OF A SAMPLE ALIQUOT IS ADJUSTED TO 10.1-10.2 WITH BUFFER (NH4CL, NH4OH AND MG EDTA SALT) SOLN. THE ALIQUOT IS THEN TITRATED WITH A STD. EDTA (DISODIUM DI-HYDROGEN ETHYLENEDIAMINETETRAACETATE) SOLN. ERIOCHROME BLACK T (SODIUM 3-HYDROXY-4((1-HYDROXY-2-NAPHTHYL) AZO)-7-NITRO-1-NAPHTHALENESULPHONATE) IS USED. INTERFERENCES: CA ION CONCN. OF 1 MG/L, TOTAL HEAVY METAL ION CONCNS. OF 0.5 MG/L. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
466	AUTOANALYZER. MG IS PPTD. IN ALK. SOLN. AND MAGNESIUM BLUE DYE ABSORBED IN THE PRESENCE OF A WETTING AGENT AND A SUSPENDED MATERIAL.
469	AUTOMATED ATOMIC ABSORPTION. THE SAMPLE IS DIGESTED WITH HNO3. A SAMPLE ALIQUOT IS MIXED WITH A STANDARD LACL3 SOLN. THE SOLN. IS ASPIRATED. THE ABSORPTION AT 285.2 IS MEASURED SPECTROMETRICALLY AND COMPARED WITH THOSE OF A REAGENT BLANK AND STD. MG SOLUTIONS. AN ACETYLENE-AIR REDUCING FLAME IS USED. THE AUTOANALYSIS UNIT CONSISTING OF AN AUTOMATED SAMPLER, MANIFOLD AND PROPORTIONING PUMP IS USED. A SECONDARY SAMPLE LINE AND A TRANSMISSION DELAY LINE ARE INCORPORATED SO THAT THE SAMPLE IS DILUTED. THE MAGNITUDE OF THE DILUTION IS PROPORTIONED TO THE DIAMETER OF THE AUXILIARY PUMP LINE. REQ'D BY: ATLANTIC REGION, WQB, SEPT, 1979.
470	CALCULATED FROM THE VALUE OF TOTAL HARDNESS AND CALCIUM HARDNESS: MG HARDNESS = T HARDNESS - CA HARDNESS. REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
479	ATOMIC ABSORPTION BY DIRECT ASPIRATION. THE SAMPLE IS DIGESTED WITH HNO3. THE SOLN. IS ASPIRATED, THE ABSORBANCE IS MEASURED SPECTROPHOTOMETRICALLY AT THE APPROPRIATE WAVE LENGTH, THEN COMPARED WITH THOSE OF STD. METAL SOLNS. A N2O-C2H2 REDUCING FLAME IS USED. SUSPENDED: THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. THE FILTER CONTAINING THE RESIDUE IS DIGESTED. DISSOLVED: IF TURBID, THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. EXTRACTABLE: THE SAMPLE IS ACIDIFIED WITH DILUTE MINERAL ACID, SHAKEN AND LEFT OVERNIGHT. (30008 & 48000 & 81003 & 82005): AQUA REGIA DIGESTION. (30006 & 29307 & 28003 & 29007 & 30307 & 48006 & 48305 & 81302 & 82003 & 82306): PRECONCENTRATION. ALUMINIUM: 309.3 MU. TUNGSTENE: 255.1 MU. -USING ACETYLENE-AIR FLAME: THALLIUM: 276.8 MU. LEAD: 283.3 MU. CADMIUM: 228.8 MU. TIN : 189.9 MU. COBALT: 240.7 MU. ANTIMONY: 217.6 MU. NICKEL : 232.0 MU. STRONTIUM: 460.7 MU. SELENIUM: 196.0 MU. IRON : 248.3 MU. MANGANESE: 279.8 MU. -USING PROPANE-AIR FLAME: ZINC: 213.8 MU. COPPER: 324.7 MU. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH,

METHOD CODE DESCRIPTION

479 ENVIRONMENT CANADA, OTTAWA, 1974.

481 ATOMIC ABSORPTION SPECTROPHOTOMETER USING A GRAPHITE FURNACE
MEASURED AT THE APPROPRIATE WAVE LENGTH.
ALUMINIUM: 309.3 MU. CHROMIUM: 267.7 MU.
REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
AND BY: FRESHWATER INSTITUTE, WINNIPEG.

484 THE SOLUTION CONTAINING THE METAL IS PREPARED BY
CONCENTRATION IN AN AQUA REGIA/PEROXIDE MEDIUM FOLLOWED BY
QUANTITATION ON A DIRECT CURRENT PLASMA EMISSION
SPECTROMETER. THE MDL IS DEPENDENT UPON THE CONCENTRATION
FACTOR (GENERALLAY 10X).
THE DETECTION LIMIT IS 0.002 UG/L. REQUESTED BY THE
WASTE WATER TECHNOLOGY CENTER, (INORGANIC CHEMISTRY SECTION)
BURLINGTON, ONTARIO, JUNE 1988.
ALUMINUM TOTAL RECOVERABLE AL MG/L

486 ATOMIC ABSORPTION BY DIRECT ASPIRATION. THE SAMPLE AND A
MIXTURE OF HNO3 AND HCLO4 ARE PLACED IN A TEFLON BEAKER
AND DECOMPOSITION IS ACHIEVED BY HEATING UNTIL A PASTE
RESULTS. HF IS THEN ADDED AND HEATING IS CONTINUED UNTIL THE
RESIDUE IS DISSOLVED. AFTER DISSOLUTION THE SAMPLE IS MADE
UP TO VOLUME IN A 100 ML VOLUMETRIC FLASK WITH THE FINAL
SOLUTION CONTAINING 5% HCL. THE ABSORBANCE IS MEASURED
SPECTROPHOTOMETRICALLY AT THE APPROPRIATE WAVE LENGTH AND
COMPARED WITH THOSE OF IDENTICALLY PREPARED STANDARDS.
AN ACETYLENE-NITROUS OXIDE REDUCING FLAME IS USED.
CADMIUM: 228.8 NM. ALUMINIUM: 309.3 NM. MANGANESE: 279.5 MU.
ZINC : 213.9 MU. MOLYBDENUM: 313.3 NM. VANADIUM: 318.4 MU.
LEAD: 283.3 NM.
-USING AN ACETYLENE-AIR FLAME:
COBALT: 240.7 MU. IRON: 248.3 NM. NICKEL: MU.
COPPER: 324.7 MU.
REF: AGEMIAN HAIG, ARAFAT,N. AND CHAU,A.S.Y.
'' METHOD FOR THE DETERMINATION OF TOTAL METALS IN SEDIMENTS
BY OPEN ACID DIGESTION'', SPECIAL SERVICES SECTION, WQB,
CCIW, BURLINGTON (1977)
REQ'D BY: WQB OTTAWA, FEB. 1978.
****** APPROVED WATER QUALITY BRANCH METHOD ******

487 ATOMIC ABSORPTION BY DIRECT ASPIRATION. THE SAMPLE IS SIEVED
AND WEIGHED ACCURATELY IN A POLYPROPYLENE WIDE MOUTH BOTTLE
0.5 N HCL IS ADDED AND THE SAMPLE IS TIGHTLY CAPPED AND
SHAKEN FOR 16 HOURS. THE SOLUTION IS THEN FILTERED AND THE
ABSORBANCE IS MEASURED AT 309.3 NM. AN ACETYLENE-NITROUS
OXIDE REDUCING FLAME IS USED.
ALUMINIUM: 309.3 NM. ZINC: 213.9 MU.
-USING AN ACETYLENE-AIR REDUCING FLAME:
CHROMIUM: 357.9 MU. MANGANESE: 279.5 NM. IRON: 248.3 NM.
-USING AN ACETYLENE-AIR FLAME:
CADMIUM: 228.8 NM. LEAD: 283.3 NM. COBALT: 240.7 MU.
NICKEL: 232.0 MU. COPPER: 324.7 MU.
REF: AGEMIAN,H. AND CHAU. A.S.Y. , AN EVALUATION OF
EXTRACTION TECHNIQUES FOR METAL ANALYSIS IN SEDIMENTS,
ANALYST,101, 761, 1976.
REQUESTED BY: WATER QUALITY BRANCH. BURLINGTON, OCT. 78.
****** APPROVED WATER QUALITY BRANCH METHOD ******

488 COLOURIMETRY WITH FERRON. IF TURBID, THE SAMPLE IS PASSED
THROUGH A 0.45 U MEMBRANE FILTER. A HYDROXYLAMINE HYDROCHLO-
RIDE (NH2OH.HCL) SOLN., CONTG. BESO4, IS ADDED TO TWO FIL-
TRATE ALIQUOTS. A SOLN., CONTG. FERRON (8-HYDROXY-7-IODO-5-
QUINOLINESULPHONIC ACID) AND ORTHOPHENANTHROLINE (9,10-PHEN-
ANTHROLINE), IS ADDED TO ONE OF THE SAMPLE ALIQUOTS. SODIUM
ACETATE SOLN. IS ADDED TO BOTH SAMPLE ALIQUOTS. THE ABSORB-
ANCE OF THE ALIQUOT, CONTG. FERRON AND ORTHOPHENANTHROLINE,
IS MEASURED SPECTROPHOTOMETRICALLY AT 520 MU, AND COMPARED
WITH THOSE OF STD. AL SOLNS. AND A REAGENT BLANK. A COLOUR
CORRECTION IS MADE, USING THE ALIQUOT WITHOUT FERRON AND OR-
THOPHENANTHROLINE. THE AL CONCN. MEASURED IS COR. FOR FE, MN
AND F IONS, BY AN EQUATION.
EXTRACTABLE: THE SAMPLE IS ACIDIFIED WITH DILUTE MINERAL ACID, SHAKEN
AND LEFT OVERNIGHT.
REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH,
ENVIRONMENT CANADA, OTTAWA, 1974.

491 COLOURIMETRY USING POWDERED REAGENTS. A 50 ML SAMPLE IS

METHOD CODE	DESCRIPTION
491	MIXED WITH ASCORBIC ACID AND ALUVER POWDER PILLOWS. BLEACHING POWDER IS ADDED TO THE EQUALLY-SPLIT SAMPLE AND THE BLEACHED AND UNBLEACHED SAMPLES ARE MEASURED COLOURIMETRICALLY AT 522 NM. THE READINGS ARE COMPARED WITH STANDARD SOLUTIONS TO GIVE THE CONCENTRATION. FLUORIDE IS A MAJOR INTERFERENCE. REQ'D BY: NHRI, OTTAWA, SEPT. 1982.
493	AT. ABSORPTION WITH SOLVENT EXTN. IF TURBID THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. THE PH OF THE FILTRATE IS ADJUSTED TO 8.00 WITH BUFFER SOLN., 8-HYDROXYQUINOLINE IS ADDED, FOLLOWED BY EXTN. WITH MIBK.(METHYL ISO-BUTYL KETONE). THE ABSORBANCE OF THE EXT. IS MEASURED AT 309.3 NM AND COMPARED WITH THOSE OF STD.AL SOLN. AN N2O-C2H2 REDUCING FLAME IS USED. EXTRACTABLE: THE SAMPLE IS ACIDIFIED WITH DILUTE MINERAL ACID, SHAKEN, AND LEFT OVERNIGHT. NOTE: CODE NO. REQUESTED BY WQB, BURLINGTON, JAN. 15, 1974.
499	ATOMIC ABSORPTION BY DIRECT ASPIRATION. THE SAMPLE IS ACIDIFIED WITH DIL. MINERAL ACID, SHAKEN, AND LEFT OVERNIGHT. THE SOLN. IS THEN ASPIRATED, THE ABSORBANCE IS MEASURED SPECTROPHOTOMETRICALLY AT 309.3 MU, AND COMPARED WITH THOSE OF STD. AL SOLNS. A N2O-C2H2 REDUCING FLAME IS USED. THE DETECTION LIMIT IS 0.10 MG/L. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974. ALUMINUM EXTRBLE. AL MG/L
504	ATOMIC ABSORPTION USING HEATED GRAPHIC FURNACE AND BACKGROUND CORRECTION. THE SAMPLE IS COLLECTED IN A CLEAN, LINEAR POLYETHYLENE BOTTLE,ACIDIFIED WITH 2 ML/L HIGH PURITY HNO3 AND STORED. NO FUTHER SAMPLE TREATMENT IS EMPLOYED PRIOR TO ANALYSIS. REQ'D BY: ECD (TURKEY LAKES PROJECT), NWRI, OCT. 1981.
511	COLOURIMETRY USING HETEROPOLY BLUE METHOD. IF TURBID, THE SAMPLE IS PASSED THROUGH A 0.45 MEMBRANE FILTER. NAHCO3(S) IS ADDED TO A FILTRATE ALIQUOT, WHICH IS THEN HEATED 1 HR AT 100 DEG.C., NEXT DIL H2SO4 IS ADDED. HCL AND (NH4)6MO7O24 SOLN. ARE SHAKEN WITH THIS ALIQUOT. OXALIC ACID SOLN. IS ADDED FOLLOWED BY A 1-AMINO-2-NAPHTHOL-4-SULPHONIC ACID SOLN., CONTG. NA2SO3 AND NAHSO3. THE RESULTING HETEROPOLY BLUE COLOUR IS MEASURED SPECTROPHOTOMETRICALLY AT 815 MU OR 650 MU, AND COMPARED WITH THOSE OF IDENTICALLY PREPD. STD. SIO2 SOLNS. INTERFERENCES: HIGH FE CONCNS., COLOUR, SULPHIDE ION, AND TANNIN (THE METHOD LESSENS TANNIN INTERFERENCE). REF.: STD. METHODS FOR THE EXAMN. OF WATER AND WASTEWATER, AMERICAN PUBLIC HEALTH ASSOCN., 13TH EDITION, 1971, P. 306.
512	COLOURIMETRY USING HETEROPOLY BLUE METHOD ON AN AUTOANALYZER. IF TURBID THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. IF THE SAMPLE IS SEA WATER ALL STD. SIO2 SOLNS. ARE PREPD. WITH SYNTHETIC SEA WATER INSTEAD OF DISTD. WATER. A FILTRATE ALIQUOT IS MIXED WITH A SOLN. OF (NH4)6MO7O24 IN DIL. H2SO4. THIS MIXT. IS THEN MIXED WITH OXALIC ACID SOLN., FOLLOWED BY A 1-AMINO-2-NAPHTHOL-4-SULPHONIC ACID SOLN., CONTG. NA2SO3 AND NAHSO3. THE RESULTING HETEROPOLY BLUE COLOUR IS MEASURED SPECTROPHOTOMETRICALLY AT 660 MU AND COMPARED WITH IDENTICALLY PREPD. STD. SIO2 SOLNS. (14105): ASCORBIC ACID INSTEAD OF 1-AMINO-2-NAPHTOL-4-SULPHURIC ACID (14106): SAME AS 14105 WITHOUT FILTRATION. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
513	SPECTROPHOTOMETRIC WITH MOLYBDATE AND REDUCING AGENT (META-SULPHITE, OXALIC ACID, AND SULPHURIC ACID).
519	ATOMIC ABSORPTION BY DIRECT ASPIRATION. THE ABSORBANCE IS MEASURED AT 251.6 MU IN AN ACETYLENE-NITROUS OXIDE REDUCING FLAME. COLOURIMETRY USING HETEROPOLY BLUE METHOD AND HATCH KIT REAGENTS. THE METHOD IS CALIBRATED WITH EACH SET OF ANALYSES. REQ'D BY: GROUNDWATER DIVISION, NHRI, SEPT. 1985.
520	THE SAMPLE IS REACTED WITH ACIDIC AMMONIUM PARAMOLYBDATE SOLN., (NH4)6MO7O24.4H2O. TARTARIC ACID AND THEN SNCL2 SOLNS

METHOD CODE	DESCRIPTION
520	ARE ADDED. THE ABSORPTION OF THE MO BLUE-COMPLEX FORMED IS MEASURED AT 820 NM. NOTE: CODE NO. REQUESTED BY FRESHWATER INST., WINNIPEG.
522	A GRAVIMETRICAL DETERMINATION USING POTASSIUM PYROSULPHATE FUSION BY THE METHOD OF TROSTELL AND WYNNE (J. AM. CERAMIC SOC., 23@18-22, 1940).
523	SEMI-QUANTITATIVE DETERMINATION OF MINERAL ASSEMBLAGE IN SEDIMENT BY X-RAY DIFFRACTION SPECTROMETRY USING CU-RADIATION WITH NI-FILTER. SAMPLES ARE AIR-DRIED, TREATED WITH GLYCEROL, AND HEATED TO 400 DEG. C OR 520 DEG. C PERCENT TOTAL CLAY MINERALS IS COMPUTED AFTER MEASURING THE RATIOS OF PEAK AREAS FOR INDIVIDUAL MINERALS (DELL 1976, CCIW UNPUBLISHED REPORT)
524	A DRIED SEDIMENT SAMPLE IS IGNITED AT 550 DEG.C FOR TWO HOURS AND THE RESIDUE AFTER IGNITION IS DIGESTED FOR 16 HOURS AT 20-24 DEG.C WITH 1 N HCL PHOSPHORUS IN THIS DILUTE ACID EXTRACT REPRESENTS TOTAL P AND IS DETERMINED COLOURIMETRICALLY ON AN AUTO ANALYZER. THE EXTRACT SOLUTION IS REACTED WITH AMMONIUM MOLYBDATE (NH4)6-MO7O24 AND THE ORTHOPHOSPHATE IN SOLUTION REACTS TO FORM MOLYBDOPHOSPHORIC ACID WICH IS THEN REDUCED BY ASCORBIC ACID TO FORM AN INTENSELY COLOURED HETEROPOLY MOLYBDOPHOSPHORIC ACID COMPLEX. THE RESULTING COLOUR OF THE COMPLEX IS MEASURED SPECTROPHOTOMETRICALLY AT 660 NM AND COMPARED WITH THOSE OF IDENTICALLY PREPARED STANDARD PO4 ION SOLUTIONS AND REAGENT BLANKS. FOR INORGANIC SEDIMENT: MEASURED BY ANALYSING ORTHO-PHOSPHATES RELEASED WHEN THE DRY UNIGNITED SEDIMENT IS DIGESTED WITH 1N HCL. REF: ASPILA,K.I.,HAIG AGEMIAN AND A.S.Y.CHAU, "A SEMI-AUTOMATED METHOD FOR THE DETERMINATION OF INORGANIC,ORGANIC AND TOTAL PHOSPHATE IN SEDIMENTS. (1976),ANALYST,101,PP-187-197 REQ'D BY: WQB OTTAWA,MARCH 1978. ****** APPROVED WATER QUALITY BRANCH METHOD ****** PHOSPHORUS TOTAL SEDIMENTS P MG/KG
525	THE DRY SEDIMENT SAMPLE IS DIGESTED AT 135(5) DEG.C IN A SEALED TEFLON BOMB WITH CONCENTRATED H2SO4 IN THE PRESENCE OF POTASSIUM PERSULFATE K2S2O8 TO CONVERT PHOSPHORUS CONSTITUENTS TO ORTHOPHOSPHATE. THE RESULTING ORTHOPHOSPHATE IS DETERMINED COLOURIMETRICALLY ON AN AUTO ANALYZER BY THE REACTION OF AMMONIUM MOLYBDATE WITH THE ORTHOPHOSPHATE TO FORM A MOLYBDOPHOSPHORIC ACID COMPLEX. THE COLOUR PRODUCED IS PROPORTIONAL TO THE ORTHOPHOSPHATE CONCENTRATION AND ITS QUANTITY IS MEASURED COLOURIMETRICALLY AT 660 NM WAVELENGTH .REF: ASPILA K.I., HAIG AGEMIAN AND A.S.Y CHAU, "A SEMI-AUTOMATED METHOD FOR THE DETERMINATION OF INORGANIC, ORGANIC AND TOTAL PHOSPHATE IN SEDIMENTS. (1976), ANALYST, 101 PP-187-197 REQ BY: WQB OTTAWA, MARCH 1978 ****** APPROVED WATER QUALITY BRANCH METHOD ******
527	ORGANIC PHOSPHORUS IS ESTIMATED BY TAKING THE DIFFERENCE BETWEEN TOTAL PHOSPHORUS IN SEDIMENT OR TOTAL. REQ'D BY: WQB OTTAWA, MARCH 1978 ****** APPROVED WATER QUALITY BRANCH METHOD ******
528	UV IRRADIATION FOLLOWED BY DISSOLVED ORTHOPHOSPHATE DETN. THE SAMPLE IS PLACED IN A QUARTZ TUBE, ACIDIFIED WITH H2SO4 AND H2O2 30% SOLN. ADDED. THE TUBE IS IRRADIATED WITH UV LIGHT FOR 4 HR, COOLED, AND THE CONTENTS THEN ANALYZED FOR SOL. ORTHOPHOSPHATE, AT 200 UG/L LEVEL THE STD. DEVIATION WAS 21 UG/L. THE RANGE IS 5-250 UG/L. ALL ORGANIC P COMPDS. WITH THE EXCEPTION OF POLYPHOSPHATES ARE CONVERTED TO SOL. ORTHOPHOSPHATE BY UV PHOTO-OXIDN. NOTE: CODE NO. REQUESTED BY FRESHWATER INST., WINNIPEG.
531	IDENTICAL TO PARAMETER 15416 BUT PASSED THROUGH A .45 MICRON FILTER. REQ'D BY: IJC,PLUARG,TASK'C',AGRICULTURAL WATERSHEDS STUDY. PHOSPHORUS TOTAL DISSOLVED P MG/L
532	THE SAMPLE IS PASSED THROUGH A .45 MICRON FILTER AND THE FILTRATE IS THEN ANALYZED AS IN METHOD 15419. DETECTION LIMIT: 0.040 MG/L REQ'D BY: POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT JANUARY, 1980.

METHOD CODE	DESCRIPTION
532	PHOSPHOROUS TOTAL DISSOLVED P MG/L
533	COLOURIMETRY ON AN AUTOANALYZER WITH ASCORBIC ACID, H2SO4 AND AMMONIUM MOLYBDATE. ORGANIC PHOSPHOROUS IS DIGESTED BY UV IRRADIATION IN THE PRESENCE OF H2SO4. THE RESULTING POLYPHOSPHATES ARE HYDROLIZED TO ORTHOPHOSPHATE IN THE PRESENCE OF H2SO4. THE ORTHOPHOSPHATES REACT WITH (NH4)6-MO7O24 TO FORM MOLYBDOPHOSPHORIC ACID WHICH IS THEN REDUCED BY ASCORBIC ACID TO FORM A BLUE COMPLEX. REQ"D BY: NWRI, BURLINGTON, MAY 1987
534	COLORIMETRY ON AN AUTOANALYSER WHERE THE ORGANIC PHOSPHORUS IS DIGESTED WITH HCLO4, H2SO4 AND VANADIUM PENTOXIDE THE ORTHOPHOSPHATES THEN REACT WITH AMIXTUREOF H2SO4 AND AMMONIUM MOLYBDATE TO FORM PHOSPHOMOLYBDIC ACID WHICH IS THE REDUCED BY ASCORBIC ACID TO FORM A BLUE COMPLEX REQUIRED BY ENVIRONMENT QUEBEC, 1988
536	PROCEDURE SIMILAR TO PHOSPHORUS TOTAL EXCEPT SAMPLES ARE VACUUM-FILTERER AT 50-75 KPA (0.5-0.75 KG/CM2) ABSOLUTE PRESSURE, THROUGH 0.45 U MEMBRANE FILTER. DETECTION LIMIT IS 2 UG/L. REQ'D BY: ALBERTA ENVIRONMENT, WATER QUALITY, DEC. 1983. PHOSPHATE SOL. ORTHO PO4 MG/L
537	FILTERED COLORIMETRIC WITH STANNOUS CHLORIDE AND AMMONIUM MOLYBDATE ADDED REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
538	REPORTED AS PHOSPHORUS. REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
539	COLOURIMETRY ON AN AUTOANALYZER WITH AMMONIUM MOLYBDATE AND SNCL2. AN ALIQUOT OF THE SHAKEN SAMPLE IS MIXED, WITH A PRE-MIXED SOLN. OF (NH4)6MO7O24 AND SNCL2, AT 30 DEG.C. THE RESULTING MOLYBDENUM BLUE COLOUR IS MEASURED SPECTROPHOTOMETRICALLY AT 660 MU, AND COMPARED WITH THOSE OF STD. PO4 ION SOLNS. INTERFERENCES: HG CONCN. OF 1 MG/L, AS. DISSOLVED: IF TURBID THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
541	COLOURIMETRY WITH (NH4)6MO7O24 AND SNCL2. SHAKEN SAMPLE.
546	COLOURIMETRIC WITH AMMONIUM MOLYBDATE, AMINO NAPHTHOL SULPHONIC ACID (AND BISMUTH NITRATE). DETERMINED ON 0.45 MICRON FILTERED SAMPLE.
547	COLOURIMETRIC ON AUTOANALYZER WITH AMMONIUM MOLYBDATE, STANNOUS CHLORIDE AND HYDRAZINE SULPHATE. DETERMINED ON 0.45 MICRON FILTERED SAMPLE.
548	THE 0.45 MICRON PASSABLE FILTRATE IS CONCENTRATED (IF NECESSARY) AND THEN DECOLOURIZED WITH PHOSPHATE FREE CHARCOAL. MANUAL COLOURIMETRIC ANALYSIS AFTER DEVELOPMENT WITH AMMONIUM MOLYBDATE-STANNOUS CHLORIDE AT 660 MU (FOR 12-15 MIN. AT ROOM TEMP.) COMPARISON STANDARDS PREPARED IDENTICALLY. REQ'D BY IJC,PLUARG,TASK 'C', AGRICULTURAL WATERSHED STUDY.
550	THE SAMPLE IS VACUM-FILTERED AT 50-75 KPA C0.5-0.75 KG/CM2 ABSOLUTE PRESSURE THROUGH A 0.45 U MEMBRANE FILTER. ANALYZED BY COLOURIMETRY ON SPECTROPHOTOMETER WITH AMMONIUM MOLYBDATE, ASCORBIC ACID, AND POTASSIUM ANTIMONY TARTRATE, AT 885 NM. MEASURED AGAINST STANDARDS OF KH2P04. DETECTION LIMIT IS 1 UG/L. REQ'D BY: ALBERTA ENVIRONMENT, WATER QUALITY, DEC. 1983. PHOSPHORUS DISSOLVED ORTHO PO4 P MG/L
552	DISSOLVED (SOLUBLE) ORGANIC PHOSPHORUS IS CALCULATED AS THE DIFFERENCE BETWEEN TOTAL DISSOLVED PHOSPHORUS AND DISSOLVED INORGANIC PHOSPHORUS. REQ'D BY: POLLUTION CONTROL LAB, ALBERTA ENVIRONMENT, JAN 81
554	COLOURIMETRY ON AN AUTOANALYZER WITH AMMONIUM MOLYBDATE AND SNCL2. H2SO4 SOLN. IS ADDED TO AN ALIQUOT OF THE SHAKEN SAMPLE, WHICH IS THEN AUTOCLAVED 30 MIN AT 100 DEG.C. THEN, IF TURBID, THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FIL-

METHOD CODE	DESCRIPTION
554	TER. THE FILTRATE IS MIXED WITH A PREMIXED SOLN. OF SNCL2 AND (NH4)6MO7O24, AT 30 DEG.C. THE RESULTING MOLYBDENUM BLUE COLOUR IS MEASURED SPECTROPHOTOMETRICALLY AT 660 MU, AND COMPARED WITH THOSE OF IDENTICALLY PREPD. STD. PO4 ION SOLNS. AND REAGENT BLANKS. INTERFERENCES : HG CONCN. AT 1 MG/L, AS. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
555	COLOURIMETRY ON AN AUTOANALYZER WITH AMMONIUM MOLYBDATE AND AMINONAPHTHOLSULPHONIC ACID AFTER PASSING THROUGH HEATING BATH WITH H2SO4 AT 90 DEG.C. SHAKEN SAMPLE. (15365): DECANTED SAMPLE. REF: TECHNICON AUTOANALYZER METHOD #93-70W. NOTE: CODE REQUESTED BY EPS, ATLANTIC REGION, SEPT 1975.
556	TOTAL PHOSPHOROUS BY TECHNICON TRAACS 800 ANALYSER. TOTAL PHOSPHOROUS IN WATER IS CONVERTED INTO ORTHO-PHOSPHATES BY HYDROLYSIS WITH H2SO4. THE ORTHOPHOSPHOROUS IS THEN DETERMINED COLORIMETRICALLY BY REACTION WITH MOLYBDATE ION AND ANTIMONY ION FOLLOWED BY REDUCTION WITH ASCORBIC ACID. REQUESTED BY: THE WASTE WATER TECHNOLOGY CENTER INORGANIC CHEMISTRY SECTION. BURLINGTON, ONTARIO, JUNE 1988.
558	COLOURIMETRY ON AN AUTOANALYZER WITH AMMONIUM MOLYBDATE AND SNCL2. IF TURBID, THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. H2SO4 SOLN. IS ADDED TO A FILTRATE ALIQUOT, WHICH IS THEN AUTOCLAVED 30 MIN AT 121 DEG.C. THE ALIQUOT IS MIXED WITH A PREMIXED SOLN. OF (NH4)6MO7O24 AND SNCL2. THE RESULTING MOLYBDENUM BLUE COLOUR IS MEASURED SPECTROPHOTOMETRICALLY AT 660 MU, AND COMPARED WITH THOSE OF IDENTICALLY PREPD. STD. PO4 ION SOLNS. AND REAGENT BLANKS. INTERFERENCES: HG CONCN. OF 1 MG/L, AS. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
559	COLOURIMETRY ON AN AUTOANALYZER WITH AMMONIUM MOLYBDATE, ASCORBIC ACID, AND POTASSIUM ANTIMONYL TARTRATE. H2SO4 SOLN. IS ADDED TO A SHAKEN SAMPLE ALIQUOT, WHICH IS THEN AUTOCLAVED 30 MIN AT 121 DEG.C. IF TURBID, THE TREATED ALIQUOT IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. A FILTRATE ALIQUOT IS THEN MIXED WITH A REAGENT SOLN., CONTG. H2SO4, (NH4)6MO7O24, POTASSIUM ANTIMONYL TARTRATE, AND ASCORBIC ACID. THE RESULTING COLOUR IS MEASURED SPECTROPHOTOMETRICALLY AT 880 MU, AND COMPARED WITH THOSE OF IDENTICALLY PREPD. STD. PO4 ION SOLNS. INTERFERENCE : HIGH FE CONCNS. DANS LA REGION DE QUEBEC, ON UTILISE 660 U AU LIEU DE 880 U (15346): FIELD FILTERED SAMPLE (0.8 U FILTER). REF WATER QUALITY BRANCH, VANCOUVER.
561	COLOURIMETRIC ON AUTOANALYSER WITH AMMONIUM MOLYBDATE AND AMINONAPHTHOLSULPHONIC ACID AFTER PASSING THROUGH HEATING BATH WITH H2SO4 AT 90 DEG.C. DETD. ON 0.45 U FILTRD SAMPLE. THE DETECTION LIMIT IS 2 UG/L. PHOSPHORUS DISSOLVED INORG. PO4 P MG/L
563	H2SO4 AND K2S2O8 SOLUTIONS ARE ADDED TO AN ALIQUOTOF THE SHAKEN SAMPLE, WHICH IS AUTOCLAVED 30 MINUTES AT 121 C. THEN MIXED WITH A PREMIXED SOLUTION OF (NH4) M 7024, AND SNCL2 AT 30 C. THE RESULTING MOLYBDENUM BLUE COLOUR IS MEASURED SPECTROPHOTOMETRICALLY AT 650 NM. REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
564	COLOURIMETRY ON AN AUTOANALYZER WITH AMMONIUM MOLYBDATE AND SNCL2. H2SO4 AND K2S2O8 SOLNS ARE ADDED TO AN ALIQUOT OF THE SHAKEN SAMPLE WHICH IS AUTOCLAVED 30 MIN. AT 121 DEG.C. THEN, IF TURBID, THE ALIQUOT IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. THE FILTRATE IS MIXED WITH A PREMIXED SOLN. OF (NH4)6MO7O24 AND SNCL2, AT 30 DEG.C. THE RESULTING MOLYBDENUM BLUE COLOUR IS MEASURED SPECTROPHOTOMETRICALLY AT 660 MU AND COMPARED WITH THOSE OF IDENTICALLY PREPD. STD. PO4 ION SOLNS. AND REAGENT BLANKS. INTERFERENCES : HG CONCN. AT 1 MG/L, AS. FOR DISSOLVED: IF TURBID THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
566	COLOURIMETRY ON AN AUTOANALYZER WITH AMMONIUM MOLYBDATE AND

ENVIRODAT/NAQUADAT METHOD CODES AND DESCRIPTIONS

METHOD CODE	DESCRIPTION
566	SNCL2. H2SO4 AND K2S2O8 SOLNS. ARE ADDED TO AN ALIQUOT OF THE SHAKEN SAMPLE, WHICH IS THEN BOILED 90 MIN., THE VOL. OF THE ALIQUOT IS MAINTAINED. THEN, IF TURBID, THE ALIQUOT IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. THE FILTRATE IS MIXED WITH A PREMIXED SOLN. OF (NH4)6MO7O24 AND SNCL2. THE RESULTING MOLYBDENUM BLUE COLOUR IS MEASURED SPECTROPHOTOMETRICALLY AT 660 MU AND COMPARED WITH THOSE OF IDENTICALLY PREPD. STD. PO4 ION SOLNS. AND REAGENT BLANKS. INTERFERENCES: HG CONCN. OF 1 MG/L, AS. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
567	COLOURIMETRY ON AN AUTOANALYZER WITH AMMONIUM MOLYBDATE, ASCORBIC ACID, AND POTASSIUM ANTIMONYL TARTRATE. K2S2O8 AND H2SO4 SOLN. ARE ADDED TO A SAMPLE, WHICH IS THEN AUTOCLAVED 30 MIN AT 121 DEG.C. IF TURBID, THE TREATED ALIQUOT IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. A FILTRATE ALIQUOT IS THEN MIXED WITH A REAGENT SOLN., CONTG. H2SO4, (NH4)MO7O24, POTASSIUM ANTIMONYL TARTRATE, AND ASCORBIC ACID. THE RESULTING COLOUR IS MEASURED SPECTROPHOTOMETRICALLY AT 880 MU, AND COMPARED WITH THOSE OF IDENTICALLY PREPD. STD. PO4 ION SOLNS. INTERFERENCE : HIGH FE CONCNS. REF.: WATER QUALITY BRANCH, VANCOUVER. DANS LA REGION DE QUEBEC, ON UTILIZE 660 NM AU LIEU DE 880. (15266 & 15113): FIELD FILTERED (0.8 MICRON FILTER) DISSOLVED: IF TURBID, THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER.
570	SAMPLES ARE DIGESTED USING A TECHNICON BD-40 BLOCK DIGESTOR AND ASSAYED USING A TECHNICON AUTO ANALYZER II CONTINUOUS FLOW ANALYTICAL SYSTEM. THE DETERMINATION OF PHOSPHORUS IS BASED ON THE COLORIMETRIC METHOD IN WHICH A BLUE COLOUR IS FORMED BY THE REACTION OF PHOSPHATE, MOLYBDATE ION AN ANTIMONY ION FOLLOWED BY REDUCTION WITH ASCORBIC ACID AT AN ACIDIC PH. THE PHOSPHOMOLYBDENUM COMPLEX IS READ AT 660 NM. REFERENCE: TECHNICON AUTO ANALYZER II, INDUSTRIAL METHODS. REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
575	COLOURIMETRIC ON AUTOANAYZER WITH AMMONIUM MOLYBDATE AND AMINONAPHTHOLSULPHONIC ACID (ANSA REAGENT) AFTER 30 MIN. IN AN AUTOCLAVE WITH H2SO4 AND K2S2O8. SHAKEN SAMPLE.
576	ACID DIGESTION WITH HNO3 (HCLO4), FILTERED AND PH ADJUSTED TO P-NITROPHENOL ENDPOINT. MANUAL COLOURIMETRIC ANALYSIS AFTER DEVELOPMENT WITH AMMONIUM MOLYBDATE-STANNOUS CHLORIDE AT 660 MU. (FOR 12-15 MIN. AT ROOM TEMP.). COMPARISON TO STANDARDS PREPARED IDENTICALLY. FOR DISSOLVED THE SAMPLE IS PASSED THROUGH A 0.45 MICRON MEMBRANE FILTER. REQ'D BY: IJC, PLUARG, TASK 'C', AGRICULTURAL WATERSHED STUDY.
577	MANUAL DIGESTION WITH K2S2O8 + H2SO4 , COLOURIMETRY BY AUTOANALYZER SNCL2 MOLYBDATE REACTION. DISSOLVED: FILTERED (0.45 MICRON FILTER). REQ'D BY: IJC,PLUARG,TASK 'C',AGRICULTURAL WATERSHEDS STUDY.
579	THE TOTAL PHOSPHATE IS GIVEN AS A SUM OF DISSOLVED AND PARTICULATE PHOSPHATE. THE METHOD USES A GLASS FIBRE FILTER IGNITED AT LOW TEMPERATURE TO DESTROY INORGANIC MATTER. THE IGNITED FILTER IS TREATED WITH DILUTE HCL WHICH EXTRACTS P AND CONVERTS IT TO AN ORTHOPHOSPHATE. P IS DETERMINED BY A SCALED DOWN VERSION OF THE SOLUBLE REACTIVE P METHOD REF: CHEMICAL ANALYSIS OF FRESHWATER. FWI MISCELLANEOUS PUBLICATION NO. 25 PAGE 67. REQ'D BY: MANITOBA DEPT. OF ENVIRONMENT JANUARY 1976
580	COLOURIMETRY ON AN AUTOANALYSER WITH AMMONIUM MOLYBDATE, HYDRAZINE, AND POTASSIUM ANTIMONYL TARTRATE. HCLO4 AND H2SO4 ARE ADDED TO A WELL-MIXED SAMPLE, WHICH IS THEN DIGESTED ON A CONTINUOUS DIGESTOR AT 300 C. THE RESULTING SOLUTION IS THEN MIXED WITH AMMONIUM MOLYBDATE, POTASSIUM ANTIMONY TARTRATE, AND HYDRAZINE. THE RESULTING COLOUR IS MEASURED SPECTROPHOTOMETRICALLY AT 880 NM AND COMPARED WITH THOSE OF IDENTICALLY PREPARED STANDARD SOLUTIONS. REFERENCE:" A SIMULTANEOUS AUTOMATED METHOD FOR TOTAL NITROGEN AND PHOSPHORUS IN THE RANGE 0.05-2 MG/L USING THE TECHNICON CONTINUOUS DIGESTOR ", L.A. JOHNSON, M. MICKO AND T.L. COULTHARD, DEPT. OF ENGINEERING, U.B.C. REQ'D BY: POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT,MARCH 1977 DISSOLVED: FILTERED (0.45 MICRON FILTER)

ENVIRODAT/NAQUADAT METHOD CODES AND DESCRIPTIONS

METHOD CODE	DESCRIPTION
580	SOLUBLE REACTIVE: VACUUM FILTERED AT 50-75 KPA CO.5-0.75 KG/CM2 ABSOLUTE PRESSURE THROUGH A 0.45 U MEMBRANE FILTER. FOR TOTAL, THE SAMPLE IS DIGESTED IN AN AUTOCLAVE AT 15 PSIG FOR 45 MINUTES WITH 0.4 G OF POTASSIUM PERSULFATE (K2S2O4). TURBID SAMPLES ARE DONE IN THE SAME MANNER EXCEPT DUPLICATE SAMPLES ARE TAKEN AND ASCORBIC ACIDS AND POTASSIUM ANTIMONY TARTRATE ARE NOT ADDED. RESULTING SPECTRIAL ABSORBANCE IS SUBTRACTED FROM SAMPLE ABSORBANCE.
581	SAMPLE IS DIGESTED ON A HOT PLATE FOR 90 MINUTES WITH H2SO4 AND K2S2O8. AUTOMATED COLOURIMETRIC ANALYSIS WITH AMMONIUM MOLYBDATE AND ASCORBIC ACID AT 880 NM. COMPARED TO IDENTICALLY PREPARED STANDARDS. REFERENCE: "STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTE-WATER", 14TH EDITION, P. 476 - 482. REQ'D BY: POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT, MARCH 1977.
582	COLOURIMETRY ON AUTO ANALYZERS WATER SAMPLES ARE DIGESTED WITH H2SO4, K2SO4 AND HGO CATALYST IN A BLOCK DIGESTER (BD-40) DURING A TWO STAGE HEATING CYCLE (200 C AND 360 C). PHOSPHORUS IS DETERMINED BY AN AUTOMATED PHOSPHOMOLYBDATE COLORIMETRY USING ANTIMONY FOLLOWED BY REDUCTION WITH ASCORBIC ACID. THE BLUE COMPLEX IS READ AT 880 MM. REF: CROWTHER, J, ; ET AL SEMI-AUTOMATED PROCEDURE FOR THE DETERMINATION OF TOTAL NUTRIENTS, WATER QUALITY SECTION, MINISTRY OF THE ENVIRONMENT, ONTARIO REQ'D BY: WATER ANALYSIS SECTION, ALBERTA ENVIRONMENTAL CENTRE, MARCH 1982
583	SAME PROCEDURE AS FOR PHOSPHORUS SOLUBLE REACTIVE EXCEPT SAMPLES ARE NOT FILTERED, BUT DIGESTED IN AN AUTOCLAVE AT 15 PSIG FOR 45 MINUTES WITH 0.4 G OF POTASSIUM PERSULFATE (K2S2O4). TURBID SAMPLES ARE DONE IN THE SAME MANNER EXCEPT DUPLICATE SAMPLES ARE TAKEN AND ASCORBIC ACIDS AND POTASSIUM ANTIMONY TARTRATE ARE NOT ADDED. RESULTING SPECTRIAL ABSORBANCE IS SUBTRACTED FROM SAMPLE ABSORBANCE. DETECTION LIMIT IS 1 UG/L. REQ'D BY: ALBERTA ENVIRONMENT,WATER QUALITY, DEC. 1983. P2O5 IN SEDIMENT %
585	FOR NAIP: SEQUENTIAL EXTRACTION BY NA-CITRATE/NA-BICARBONATE/NA-DITHIONATE FOR 15 MINUTES AT 85 DEG. C, FOLLOWED BY IN NAOH EXTRACTION FOR 16 HOURS AT 25 DEG. C. P IS THEN DETERMINED IN SOLUTION COLORIMETRICALLY (BLUE MOLYBDOPHOSPHORIC ACID ABSORBANCE AT 820 UM). FOR AIP: EXTRACTION OF THE SEDIMENT SAMPLE USED FOR NAIP, BY IN HCL FOR 16 HOURS AT 25 DEG. C. P IS THEN DETERMINED IN SOLUTION COLORIMETRICALLY (BLUE MOLYBDOPHOPHORIC ACID ABSORBANCE AT 820 UM.). REF: @ MAYER,T. AND J.D.H. WILLIAMS 1981. MODIFIED PROCEDURE FOR DETERMINING THE FORMS OF PHOSPHOROUS IN FRESHWATER SEDIMENTS. NWRI TECHNICAL BULLETIN NO. 119.
590	DIFFERENCE BETWEEN TOTAL P AND INORGANIC P (NAIP + AIP, REF.@ MAYER,T. AND J.D.H. WILLIAMS 1981. MODIFIED PROCEDURE FOR DETERMINING THE FORMS OF PHOSPHORUS IN FRESHWATER SEDIMENTS. NWRI TECHNICAL BULLETIN NO. 119.
591	HCLO4 EXTRACTION OR NA2CO3 FUSION AND DISSOLUTION IN DILUTED H2SO4, FOLLOWED BY COLORIMETRIC DETERMINATION OF P (BLUE MOLYBDOPHOSPHORIC ACID ABSORBANCE AT 820 UM). REF.@ MAYER, T. AND J.D.H. WILLIAMS 1981. MODIFIED PROCEDURE FOR DETERMINING THE FORMS OF PHOSPHORUS IN FRESHWATER SEDIMENTS. NWRI TECHNICAL BULLETIN NO. 119.
592	SEMI-AUTOMATED PERSULPHATE DIGESTION. A FREEZE-DRIED SEDIMENT SAMPLE GROUND TO PASS A 120 MESH SIEVE IS DIGESTED IN A TEFLON LINED BOMB WITH ACID PERSULPHATE. THE ORTHOPHOSPHATE IS DETERMINED BY AN AUTOMATED COLORIMETRIC METHOD BASED ON THE FORMATION OF A COMPLEX WITH AMMONIUM MOLYBDATE, AND SUBSEQUENT REDUCTION BY ASCORBIC ACID. MEASURED AT 880 NM. REF: METHODS MANUAL, POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT, EDMONTON, 1978. NOTE: CODE REQUESTED BY POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT, SEP., 1978.

METHOD CODE	DESCRIPTION
593	SEMI-AUTOMATED HIGH TEMPERATURE IGNITION. A FREEZE-DRIED SEDIMENT SAMPLE GROUND TO PASS A 120 MESH SIEVE IS IGNITED AT 550C. THE RESIDUE IS EXTRACTED WITH HYDROCHLORIC ACID AND THE ORTHOPHOSPHATE DETERMINED BY AN AUTOMATED COLORIMETRIC METHOD BASED ON THE FORMATION OF A HETEROPOLY-MOLYBDOPHOSPHORIC COMPLEX MEASURED AT 880 NM. REF: METHODS MANUAL, POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT, SEP., 1978. NOTE: CODE REQUESTED BY POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT, SEP., 1978.
594	SEMI-AUTOMATED BLOCK DIGESTION. A FREEZE-DRIED SEDIMENT SAMPLE GROUND TO PASS A 120 MESH SIEVE IS DIGESTED WITH H2SO4, K2SO4 AND A MERCURY CATALYST AT 375C. THE ORTHOPHOSPHATE IS DETERMINE BY AN AUTOMATED COLORIMETRIC METHOD BASED ON THE FORMATION OF A HETEROPOLY-MOLYBDOPHOSPHORIC ACID COMPLEX AND MEASURED AT 880 NM. REF: METHODS MANUAL, POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT, EDMONTON, 1978. NOTE: CODE REQUESTED BY POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT, SEP., 1978.
595	SEMI-AUTOMATED. A FREEZE-DRIED SEDIMENT SAMPLE GROUND TO PASS A 120 MESH SIEVE IS EXTRACTED WITH 1N HCL AND THE INORGANIC PHOSPHORUS IS DETERMINED BY AN AUTOMATED COLORIMETRIC METHOD BASED ON THE FORMATION OF HETEROPOLY-MOLYBDOPHOSPHORIC ACID AND MEASURED AT 880 NM. REF: METHODS MANUAL, POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT, EDMONTON, 1978. NOTE: CODE REQUESTED BY POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT, SEP., 1978.
597	SAMPLES DIGESTED IN H2SO4 AND K PERSULFATE, THEN ANALYSED USING AMMONIUM MOLYBDATE COLORIMETRIC METHOD. DET. LIMIT : 0.1 MG/KG PHOSPHORUS PARTICULATE (CALCD.) P MG/L
598	PARTICULATE PHOSPHORUS = TOTAL PHOSPHORUS - TOTAL DISSOLVED (SOLUBLE) PHOSPHORUS. (15902): FIELD FILTERED SAMPLES.
600	LOW TEMPERATURE IGNITION AND ACID EXTRACTION OF SUSPENDED MATTER (ON GLASS-FIBRE FILTER PAPERS) AND COLORIMETRY USING ACID MOLYBDATE WITH SD AND ASCORBIC ACID AS THE REDUCTANT. REQ'D BY: FWI/ELA FIELD LAB, AUGUST 1984.
601	PRETREATMENT: FILTRATION USING 1,2 MICRON FILTER PRETREATED AT 550 DEGREES C FOR 9 HRS. THE FILTER IS THEN PLACED IN A VIAL AND PYROLIZATION OCCURS AT 550 C FOR 1 HR. HCL 0,16N IS ADDED IN EACH VILA AND HEATED AT 105 C FOR 2 HRS TO DISSOLVE THE ORTHOPHOSPHATES FORMED DURING THE PYROLIZATION. TREATMENT: AUTOMATED COLORIMETRY WHERE THE ORTHOPHOSPHATES REACT WITH AMMONIUM MOLYBDATE AND SULPHURIC ACID TO FORM PHOSPHOMOLYBDIC ACID WHICH IS THEN REDUCED BY ASCORBIC ACID TO FORM A BLUE COMPLEX. REQUIRED FOR ENVIRONMENT QUEBEC, JULY 1988
603	PARTICULATE INORGANIC PHOSPHORUS IS CALCULATED AS THE DIFFERENCE BETWEEN TOTAL INORGANIC PHOSPHORUS AND DISSOLVED (SOLUBLE) INORGANIC PHOSPHORUS. REQ'D BY: GEMS-GLOWDAT, CCIW, SEPT. 1980.
604	PARTICULATE ORGANIC PHOSPHATE IS CALCULATED AS THE DIFFERENCE BETWEEN TOTAL PARTICULATE PHOSPHORUS AND PARTICULATE INORGANIC PHOSPHORUS. REQ'D BY: GEMS-GLOWDAT, CCIW, SEPT. 1980.
606	SPECIFIC ION ELECTRODE. DIRECT MEASUREMENT REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
607	SPECIFIC ION ELECTRODE USED AS THE END POINT INDICATOR IN TITRATION WITH AGNO3. REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
608	A FIXED, MEASURED VOLUME (NORMALLY 500 ML) IS COLLECTED AND PRESERVED WITH 1 ML OF 1 M ZN (O AC)2 FOLLOWED BY THE ADDITION OF 1 ML OF 0.5 M NA2CO3. SAMPLE IS SHAKEN TO FORM

ENVIRODAT/NAQUADAT METHOD CODES AND DESCRIPTIONS

METHOD CODE	DESCRIPTION
608	SULFIDE FLOC, THEN CENTRIFUGED AT 5000 R.P.M. FOR 5 MIN. THE RESIDUE IS RECOVERED AND REDISSOLVED BY ADDING AN ALKALINE ANTIOXIDANT REAGENT CONSISTING OF NA2H2 EDTA 2 H20, NAOH AND ASCORBIC ACID AND DILUTED TO 25.0 ML WITH DEMINERALIZED WATER. STANDARDS RANGING FROM 0 TO 30 UG/L 5 ARE PREPARED AND TREATED IN THE SAME MANNER AS THE SAMPLES. SULFIDE ION CONCENTRATION IS MEASURED USING A SILVER/SULF-IDE SELECTIVE ION ELECTRODE AND A DOUBLE JUNCTION ELECTRODE WITH 3.5 M KCL IN THE OUTER COMPARTMENT. UNKNOWNS ARE CALCULATED FROM A CURVE OBTAINED USING STANDARDS. REFERENCE: E.W.BAUMANN, ANAL. CHM., 46, 1345-7 (1974). REQ'D BY: WQB, CALGARY, NOV, 1981.
609	GRAVIMETRIC METHOD. SULPHATE IS PRECIPITATED IN A HYDROCHLORIC ACID MEDIUM AS BARIUM SULPHATE BY THE ADDITION OF BARIUM CHLORIDE. AFTER A PERIOD OF DIGESTION, THE PRECIPITATE IS FILTERED, WASHED, IGNITED, AND WEIGHED AS BASO4.
610	GRAVIMETRIC METHOD. SULPHATE IS PRECIPITATED IN A HYDROCHLORIC ACID MEDIUM AS BARIUM SULPHATE BY THE ADDITION OF BARIUM CHLORIDE. AFTER A PERIOD OF DIGESTION, THE PRECIPITATE IS FILTERED WASHED, IGNITED, AND WEIGHED AS BASO4. THE DETECTION LIMIT IS 1.0 MG/L. SULPHATE DISSOLVED SO4 MG/L
611	TURBIDIMETRIC METHOD. SULPHATE IS PRECIPITATED IN A HYDROCHLORIC ACID MEDIUM WITH BARIUM CHLORIDE. THE ABSORBANCE OF THE BARIUM SULPHATE SUSPENSION IS MEASURED BY A PHOTOMETER AND THE SULPHATE CONCENTRATION IS DETERMINED BY COMPARISON OF THE READINGS WITH A STANDARD CURVE.
612	TITRN. WITH BACL2 IN ALCOHOL. IF TURBID, THE SAMPLE IS PAS-SED THROUGH A 0.45 U MEMBRANE FILTER. THE FILTRATE IS PASSED THROUGH A STRONGLY ACIDIC CATION EXCHANGE RESIN, TO REMOVE CATIONS. THORIN (2(2'-HYDROXY-3,6-DISULPHO-1-NAPHTHYLAZO) BENZENE ARSONIC ACID) INDICATOR SOLN. AND 95% ETHANOL ARE ADDED TO AN ELUANT ALIQUOT. THE PH IS THEN ADJUSTED TO 3.8-4.0 WITH NH4OH AND HCL, AND THE ALIQUOT TITRATED WITH BACL2. A REAGENT BLANK IS SIMILARLY TREATED. INTERFERENCE CL ION CONCN. OF 1 G/L. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
613	AUTOANALYZER USING BARIUM CHLORIDE.
615	COLOURIMETRY ON AUTOANALYZER WITH BACL2 AND METHYLTHYMOL BLUE. SO4 ION IS REACTED WITH AN EQUIMOLAR SOLUTION OF BACL2 AND METHYLTHYMOL BLUE AT PH 2.3-3.0. THE PH IS RAISED TO 12.5-13.0 WHERE EXCESS BA REACTS WITH THE METHYLTHYMOL BLUE. THE ABSORBANCE OF EXCESS METHYLTHYMOL BLUE IS MEASURED AT 460 NM. NOTE: CODE NO. REQUESTED BY WQB, BURLINGTON, APRIL 1974. NOTE: IN THE CASE OF PRECIPITATION SAMPLES, A DECANTED ALIQUOT OF THE UNSHAKEN, UNFILTERED SAMPLE IS NORMALLY TAKEN FOR ANALYSIS. REF: WQB, NHRI, JULY, 1979 (16307): NO FILTRATION.
617	ION CHROMATOGRAPHY REQ'D BY: WQB, OTTAWA, JAN. 1980.
618	COLOURIMETRY ON AUTOANALYZER WITH BACL2. BARIUM SULPHATE IS FORMED IN A REACTION WITH BACL2. EXCESS NON-PRECIPITATED BARIUM REACTS WITH CALMAGITE AND MG EDTA TO FORM A VIOLET-RED COLOUR. REF: ENVIRONNEMENT QUEBEC, BQMA CODE 160123 REQ'D BY: NWRI, BURLINGTON, MARCH, 1986
619	THE SAMPLE IS ANALYSED BY SINGLE COLUMN ION CHROMATOGRAPHY USING AN ELUANT OF 5 MM P-HYDROXY-BENZOIC ACID BUFFERED AT PH 8.4. WASTE WATER TECHNOLOGY CENTER, (INORGANIC CHEMISTRY SECTION) BURLINGTON, ONTARIO, JUNE 1988.
621	THE THIOSULFATE ANION IS OXIDIZED TO TETRATHIONATE IN WEAKLY ACID IODINE SOLUTION: 2S2O3-- + I2- = -S4O6-- + 2I THE THIO-SULFATE ANION IS TITRATED WITH 0.01N IODINE SOLUTION USING THYODENE OR BRITISH DRUG HOUSE INDICATOR (CATALOGUE NO.

METHOD CODE	DESCRIPTION
621	20054). REF: A TEXT BOOK ON QUANTITATIVE INORGANIC ANALYSIS - THIRD EDITION. JOHN WILEY & SONS INC., NEW YORK, N.Y. 1968. NOTE: CODE REQUESTED BY EPS, ATLANTIC REGION, SEPT. 1975
622	THIOSULFATE AND POLYTHIONATES CONTAINING 3, 4 AND 5 SULFUR ATOMS REACT WITH MERCURIC CHLORIDE TO QUANTITATIVELY RELEASE ACID IN SOLUTION. THE ACID GENERATED IS TITRATED WITH STANDARD SODIUM TO DETERMINE THE CONCENTRATION OF THESE FOUR SULFUR ANIONS; S2O3--, S3O6--, S4O6 AND S5O6--. THE REF: VOGEL A.I., A TEXT BOOK ON QUANTITATIVE INORGANIC ANALYSIS - THIRD EDITION. JOHN WILEY & SONS INC., NEW YORK, N.Y., 1968. NOTE: CODE REQUESTED BY EPS, ATLANTIC REGION, SEPT. 1975.
623	LAMOTTE TEST KIT - DPD TITRIMETRIC METHOD. REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
624	HACH TEST KIT - DPD COLOURIMETRIC METHOD. REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
625	TITRATION WITH MERCURIC NITRATE AND DIPHENYLCARBAZONE AS INDICATOR.
626	POTENTIOMETRIC TITRN. WITH AGNO3 USING A GLASS AND AG-AGCL ELECTRODE SYSTEM.
627	COLOURIMETRY ON AN AUTOANALYZER USING FERRIC AMMONIUM SULPHATE AND MERCURIC THIOCYANATE. IF TURBID THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. AN ALIQUOT OF THE FILTRATE IS MIXED WITH A PREMIXED SOLN. CONTG. HG(SCN)2 AND FENH4(SO4)2 (PREPD. BY MIXING FE(NH4)2(SO4)2 AND HNO3). THE RESULTING COLOUR IS MEASURED SPECTROPHOTOMETRICALLY AT 480 MU, AND COMPARED WITH THOSE OF IDENTICALLY PREPD. STD. CL ION SOLNS. AND REAGENT BLANKS. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
628	SILVER NITRATE & POTASSIUM CHROMATE.
630	COLOURIMETRY ON AN AUTONALYZER USING FERRIC NITRATE AND MERCURY THIOCYANATE. IF TURBID, THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. AN ALIQUOT OF THE FILTRATE IS MIXED WITH A PREMIXED SOLN. CONTG. HG(SCN)2 AND FE(NO3)3. THE RESULTING COLOUR IS MEASURED SPECTROPHOTOMETRICALLY AT 480MU, AND COMPARED WITH THOSE OF IDENTICALLY PREPD. STD. CL ION SOLNS, AND REAGENT BLANKS. REF: WQB, VANCOUVER. NOTE: CODE NO. REQUESTED BY WQB, VANCOUVER, MARCH 19, 1973. NOTE: IN THE CASE OF PRECIPITATION SAMPLES, A DECANTED ALIQUOT OF THE UNSHAKEN, UNFILTERED SAMPLE IS NORMALLY TAKEN FOR ANALYSIS. REF: WQB, NHRI, JULY, 1979. (17208): NO FILTRATION.
631	ION EXCHANGE METHOD. THE SAMPLE IS SPLIT IN 2 FRACTIONS EACH BEING PASSED THROUGH AN ION EXCHANGE COLUMN. IN COLUMN 1 A STRONG ACID CATION RESIN EXCHANGES THE SAMPLE CATIONS FOR H IONS. THE H IONS CONCN. IN THE EFFLUENT IS EQUIV. TO CL+SO4 IONS CONCNS. COLUMN 2 CONTAINS A 2-STEP RESIN BED. IN THE 1ST STAGE THE SAMPLE CATIONS ARE EXCHANGED FOR AG IONS WHICH THEN PRECIPITATE THE CL IONS AS AGCL. IN THE 2ND STAGE THE AG IONS ARE EXCHANGED FOR H IONS. THE RESULTING EFFLUENT IS IDENTICAL TO THAT OF COLUMN 1 EXCEPT THAT HCL HAS BEEN REMOVED. THUS THE H IONS CONCN. IN THE EFFLUENT FROM COLUMN 2 IS EQUIV. TO SO4 IONS CONCN. THE DIFFERENCE IN THE H IONS CONCN. IN THE EFFLUENTS OF COLUMNS 1 AND 2 IS EQUIV. TO CL IONS CONCN. THE H IONS CONCN. IN THE EFFLUENTS IS MEASURED BY CONDUCTANCE. CORRECTIONS MUST BE MADE WHEN NO3, PO4, AND F IONS ARE PRESENT IN SIGNIFICANT AMTS. AT 10 MG/L CL IONS LEVEL THE STD. DEVIATION WAS 0.15 MG/L. NOTE: CODE NO. REQUESTED BY FRESHWATER INST., WINNIPEG.
634	TITRATION WITH MERCURIC NITRATE. THE END POINT IS DETERMINED BY ELECTRICAL CONDUCTIVITY. REF: ENVIRONMENT QUEBEC, BQMA CODE 170125 REQ"D BY: NWRI, BURLINGTON, MARCH, 1986

METHOD CODE	DESCRIPTION
635	THE SAMPLE IS ANALYSED BY SINGLE COLUMN ION CHROMATOGRAPHY USING AN ELUANT OF 5 MM P-HYDROXY-BENZOIC ACID BUFFERED AT PH 8.4. REQUESTED BY THE WASTE WATER TECHNOLOGY CENTER, INORGANIC CHEMISTRY SECTION. BURLINGTON, ONTARIO, JUNE 1988.
636	METHOD REQ'D BY WQB, OTTAWA, OCT. 1979. CHLOROFORM UG/L
637	HEADSPACE ANALYSIS BY ELECTRON CAPTURE GAS CHROMATOGRAPHY THE WATER SAMPLE IS EQUILIBRATED WITH A CONSTANT VOLUME OF HELIUM BY VIGOROUSLY SHAKING AND THE HEADSPACE SUBSAMPLED FOR GAS CHROMATOGRAPHIC ANALYSIS. REF: (1) METHODS FOR THE EXAMINATION OF WATERS AND ASSOCIATED MATERIALS, 1-16 (1980), "CHLORO- AND BROMO-TRIHALOGENATED METHANES IN WATER". (2) ANALYSIS OF HEADSPACE GASES FOR PARTS PER BILLION CONCENTRATIONS OF VOLATILE CONTAMINANTS IN WATER SAMPLES BY GAS CHROMATOGRA-PHY BY D.A. MURRAY - DEPARTEMENT OF FISHERIES & THE ENVIRO-NMENT, FRESWATER INSTITUTE,WINNIPEG,MANITOBA REQ'D BY: WATER ANALYSIS AND RESEARCH SECTION, ALBERTA ENVIRONMENTAL CENTRE, MAY 1982.
643	ANHYDROUS KHCO3 IS DISSOLVED IN THE SAMPLE AND ACETIC ANHYDRIDE AND PETROLEUM ETHER ARE ADDED. AFTER REACTION THE LAYERS ARE SEPERATED AND THE ACYLATION REACTION REPEATED TWICE ON THE AQUEOUS LAYER. THE ORGANIC EXTRACTS ARE DRIED OVER NA2SO4 AND REDUCED IN VOLUME AND CLEANED ON A SILICA GEL COLUMN. THE PHENYL ACETATES ARE ELUTED WITH 1'1 TOTUENE-HEXANE, THE FRACTION MADE UP TO VOLUME AND ANALYZED BY GC USING DETECTORS. REQ'D BY: WATER QUALITY BRANCH, MONCTON, FEB. 1985.
658	CAPILLARY GC METHOD- THE WATER SAMPLE IS EXTRACTED WITH METHYLENE CHLORIDE, SUBSEQUENTLY CONCENTRATED AND BACK EXTRACTED INTO K2CO3 SOLUTION FOLLOWED BY CHLOROACETYLATION. REQ'D BY: WQB LABORATORY, AUGUST, 1985.
664	COLUMN/GAS-LIQUID CHROMATOGRAPHY AROCLOR TOTAL CL (PCB'S) SEDIMENTS MG/KG
666	COLUMN/GAS-LIQUID CHROMATOGRAPHY. PENTACHLOROPHENOL IS EXTRACTED WITH BENZENE, THEN THE PCP IS EXTRACTED FROM THE BENZENE WITH A 0.1 MOLAR SOLUTION K2CO3 THE PCP IS DERIVATIZED BY ACETYLATION WITH THE ADDITION OF ACETIC ANHYDRIDE TO THE CARBONATE SOLUTION. THE PENTACHLOROPHENYL ACCETATE IS THEN EXTRACTED INTO HEXANE AND QUANTITATION IS ACHIEVED VIA ELECTRON CAPTURE - GLC. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA,1974
668	THE FISH SAMPLE IS EXTRACTED WITH METHYLENE CHLORIDE USING A POLYTRON HOMOGENIZER. CLEAN UP AND CONCENTRATION ARE BY GPC FOLLOWED BY SILICA GEL FRACTIONATION. ANALYSIS IS PERFORMED BY GC/EC AND GC/FID. REQ'D BY: WQB, BURLINGTON, JULY 1983.
672	REQ'D BY: WATER QUALITY LABORATORY, BURLINGTON, NOV. 1984. HEXACHLORO- BENZENE NG/L
673	CAPILLARY GC METHOD. A WATER COLUMN IS EXTRACTED WITH DICHLOROMETHANE, CONCENTRATED AND FRACTIONATED ON SILICA GEL COLUMN. TWO FRACTIONS ARE COLLECTED WHICH ARE CONCENTRATED TO DESIRED VOLUMES AND INJECTED ON GC WITH EL DETECTOR. REQ'D BY: NATIONAL WATER QUALITY LAB, BURLINGTON, OCT. 1985
675	COLUMN/GAS-LIQUID CHROMATOGRAPHY. THE SEDIMENT SAMPLE IS EXTRACTED WITH A 1:1 HEXANE-ACETONE MIXTURE USING AN ULTRA-SONIC EXTRACTOR. THIS EXTRACT IS PARTITIONED WITH WATER THEN BACK EXTRACTED IN AN ORGANIC SOLVENT. THE COMBINED EXTRACTS ARE DRIED, REDUCED IN VOLUME AND THEN FUTHER CLEANED ON A FLORISIL COLUMN ON WHICH THE PCB AND ORGANOCHLORINATED PESTICIDES ARE FRACTIONED INTO FOUR FRACTIONS. THE HEXA-CHLOROBENZENE RESIDUES ARE IDENTIFIED AND QUANTIFIED USING A GAS CHROMATOGRAPH EQUIPPED WITH AN ELECTRON CAPTURE DETECTOR. REQ'D BY: WATER QUALITY BRANCH, BURLINGTON, JAN. 1981.

METHOD CODE	DESCRIPTION
677	CAPILLARY GC METHOD. A WATER SAMPLE IS EXTRACTED WITH HEXANE, SUBSEQUENTLY CONCENTRATED AND ANALYZED BY CAPILLARY GAS CHROMATOGRAPHY USING ELECTRON CAPTURE DETECTION. REF: BRUN,G.L.,DETERMINATION OF CHLORINATED BENZENES BY CAPILLARY GC, INTERNAL REPORT, JUNE,1980. REQ'D BY: WQB, MONCTON, NOV. 1981.
680	SOLVENT EXTRACTION/GAS CHROMATOGRAPHY. REQ'D BY: WATER QUALITY LABORATORY, CCIW, NOVEMBER 1984.
681	STEAM DISTILLATION METHOD. THE SEDIMENT SAMPLE IS EXTRACTED BY MEANS OF STEAM DISTILLATION FROM ORGANIC FREE WATER ADDED TO THE SEDIMENT AND IS PARTITIONED WITH N-HEXANE APPARATUS FOR 3 HOURS. THE COMBINED ORGANIC EXTRACTS ARE DRIED, REDUCED IN VOLUME AND THEN EXAMINED BY HIGH RESO LUTION CAPILLARY COLUMN GAS CHROMATOGRAPHY. REF: F.I. ONUSKA, R. THOMSON, K. TERRY: A COMPARISON OF METHODOLOGY FOR THE DETERMINATION OF CHLOROBENZENES IN SEDIMENT SAMPLES, INTERNAL REPORT, MAY, 1981. REQ'D BY: WQB, MONCTON, NOV. 1981
708	TOTAL ORGANO-CHLORINE COMPOUNDS. REQ'D BY: GEMS-GLOWDAT, CCIW, NOV. 1984.
709	REQ'D BY: WATER QUALITY LABORATORY, BURLINGTON, NOV. 1984.
718	COLUMN/GAS-LIQUID CHROMATOG. A 1 L SAMPLE IS EXTD. BY BENZENE OR HEXANE, AND THE EXT(S). CONCD. AND DRIED. THIS SOLN. IS THEN CHROMATOGRAPHED ON A FLOROSIL COLUMN FOR PRE-LIMINARY SEPN. THE ELUATES ARE CONCD. THEN INJECTED INTO A GAS CHROMATOGRAPH. THE NONSOLVENT AREAS OF THE CHROMATOGRAM ARE COMPARED WITH THOSE OF STD. SOLNS. OF THE PURIFIED PESTICIDE. AN ELECTRON CAPTURE DETECTOR IS USED. THE PESTI-CIDE IS CONFIRMED BY TLC AND SUITABLE CHEMICAL TESTS, WHERE APPLICABLE. (WATER QUALITY BRANCH, BURLINGTON) REF.: CHAU, A.S.Y., ANAL. OF CHLORINATED HYDROCARBON PESTI-CIDES IN WATERS AND WASTEWATERS, INLAND WATERS BRANCH, 1972.
719	COLUMN/GAS-LIQUID CHROMATOGRAPHY. A 10 G SAMPLE OF SEDIMENT IS EXTRACTED IN A WARING BLENDER WITH ACETONITRILE, DILUTED WITH WATER AND THEN PARTITIONED WITH PETROLEUM ETHER. THE ORGANIC PHASE IS WASHED WITH WATER, DRIED AND CONCENTRATED. THE CONCENTRATED EXTRACT IS THEN FURTHER PURIFIED BY CLEAN-UP ON A FLUORISIL COLUMN. PESTICIDES AND PCB'S WILL BE FRACTIONATED INTO 4 FRACTIONS. THE CONCENTRATED ELUATES ARE THEN INJECTED INTO A GAS CHROMATOGRAPH. THE CHROMATOGRAMS ARE THEN COMPARED WITH THOSE OBTAINED FROM STANDARD SOLUTIONS OF PESTICIDES. THE ELECTRON CAPTURE DETECTOR IS USED AND SAMPLES ARE RUN ON AT LEAST 3 DIFFERENT GLC COLUMNS. PROCEDURES FOR CONFIRMATION OF IDENTITY ARE THE SAME AS FOR WATER EXTRACTS. REF: ANALYTICAL METHODS MANUAL, PROCEDURE FOR THE ANALYSIS OF ORGANOCHLORINATED PESTICIDES AND PCB'S IN FISH AND SEDIMENTS, INLAND WATERS DIRECTORATE, WATER QUALITY BRANCH, OTTAWA. NOTE: PARAMETER CODE NO. REQUESTED BY WQB, MONCTON, APRIL 1975.
721	THE TOTAL OF ALL AVAILABLE OF THE FOLLOWING PARAMETERS 18000L,18005L,18010L,18020L,&18023L. OF THE VALUES USED TO ARRIVE AT THE TOTAL, ANY TRACES (L0.001) WERE INCLUDED AS REQUIRED BY WATER QUALITY BRANCH, BURLINGTON, JAN. 1981.
722	COLUMN/GAS LIQUID CHROMATOGRAPHY. A 1-4L WATER SAMPLE IS PASSED THROUGH AN XAD-2 RESIN COLUMN. THE PESTICIDES ARE SORBED ON THE RESIN COLUMN. THE ORGANOCHLORINE IS ELUTED WITH DIETHYL ETHER, FOLLOWED BY CONCENTRATION TO 1 ML IN 150-OCTANE.THE EXTRACT IS CLEANED UP AND SEPARATED INTO ONE OF FOUR FRACTIONS USING HIGH SPEED LIQUID CHROMATOGRAPHY. THE PESTICIDE IS IDENTIFIED AND QUANTIFIED BY ELECTRON CAPTURE GLC. THE PESTICIDE IS CONFIRMED BY SUITABLE CHEMICAL TESTS OR GC/MS WHERE APPLICABLE. REF: COBURN, J.A., I.A. VALDMANIS, AND A.S.Y. CHAU; EVALUATION OF XAD-2 FOR MULTIRESIDUE EXTRACTION OF ORGANOCHLORINE PESTICIDES AND POLYCHLORINATED BIPHENYLS FROM NATURAL WATERS; (1977) JAOAC, 60(1) 224-228 REQ'D BY: WATER QUALITY BRANCH, BURLINGTON, APRIL 1978.

METHOD CODE	DESCRIPTION
733	THE TOTAL OF ANY VALUES STORED FOR DDT AND ITS ISOMERS. 'LESS THAN' VALUES (REDUCED BY 0.000001) ARE INCLUDED IN THE CALCULATION AND A 'Q' IS USED TO INDICATE THE PRESENCE OF ONE OR MORE OF THESE VALUES IN THE SUMMATION. REQ'D BY: WQB, OTTAWA, AUGUST 1979.
760	THE TOTAL OF ANY VALUES STORED FOR HEPTACHLOR AND HEPTACHLOR EPOXIDE. 'LESS THAN' VALUES (REDUCED BY 0.000001) ARE INCLUDED IN THE CALCULATION AND A 'Q' IS USED TO INDICATE THE PRESENCE OF ONE OR MORE OF THESE VALUES IN THE SUMMATION. REQ'D BY: WQB, OTTAWA, AUGUST 1979.
780	THE TOTAL OF ANY VALUES STORED FOR CHLORDANE AND ISOMERS. 'LESS THAN' VALUES (REDUCED BY 0.000001) ARE INCLUDED IN THE CALCULATION AND A 'Q' IS USED TO INDICATE THE PRESENCE OF ONE OR MORE OF THESE VALUES IN THE SUMMATION. REQ'D BY: WQB, OTTAWA, AUGUST 1979.
786	COLUMN/GAS-LIQUID CHROMATOGRAPHY REF.: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
811	THE TOTAL OF VALUES STORED FOR ALDRIN AND HEOD (DIELDRIN). 'LESS THAN' VALUES (REDUCED BY 0.000001) ARE INCLUDED IN THE CALCULATION AND A 'Q' IS USED TO INDICATE THE PRESENCE OF ONE OR MORE OF THESE VALUES IN THE SUMMATION. REQ'D BY: WQB, OTTAWA, AUGUST 1979.
829	REF.: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
843	THE SAMPLE IS EXTD. WITH HEXANE OR BENZENE, CONCD., AND THEN QUANTIFIED BY GLC EQUIPPED WITH A FLAME PHOTOMETRIC DETECTOR. THE PESTICIDE IS IDENTIFIED AND QUANTIFIED USING A GAS CHROMATOGRAPH EQUIPPED IWTH A FLAME PHOTOMETRIC (FPD) OR NITROGEN-PHOSPHOROUS (NPD) DETECTOR. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1979. REQ'D BY: WQB, CALGARY, APRIL, 1974. AT THE NATIONAL WATER QUALITY LAB IN BURLINGTON, THE SAMPLE IS EXTRACTED WITH MECL2, FRACTIONATED ON 10_DEACTIVATED FLORISIL, CONCENTRATED, AND QUANTIFIED BY GLC WITH EC. DETECTOR. REQ'D BY: WQB, LABORATORY, BURLINGTON, JULY 1985.
847	COLUMN/GAS-LIQUID CHROMATOGRAPHY THE PESTICIDE IS IDENTIFIED AND QUANTIFIED USING A GAS CHROMATOGRAPH EQUIPPED WITH A FLAME PHOTOMETRIC (FPD) OR NITROGEN-PHOSPHORUS (NPD) DETECTOR. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1979. REQ'D BY: WATER QUALITY BRANCH, FEBRUARY 1976
873	THE SAMPLE IS PRE-CONCENTRATED BY PASSING THE WATER SAMPLE THROUGH AN XAD-4 RESIN COLUMN. THE PESTICIDE IS RECOVERED BY ELUTING THE COLUMN WITH ETHYL ACETATE AND FINAL ANALYSIS IS MADE BY GAS LIQUID CHROMATOGRAPHY WITH A FLAME PHOTOMETRIC DETECTOR. REQ'D BY: WQB, MONCTON, JUNE 1980.
874	COLUMN/GAS-LIQUID CHROMATOGRAPHY. THE WATER SAMPLE IS PRE. SERVED IN THE FIELD WITH 150 ML OF ETHYL ACETATE. THE SAMPLE IS EXTRACTED WITH ETHYL ACETATE AND THE EXTRACTS ARE CONCENTRATED AND ANALYZED DIRECTLY BY GLC USING THE HALL ELECTROLYTIC CONDUCTIVITY DETECTOR. REQ'D BY: WQB MONCTON, SEPT. 1978.
875	THE SAMPLE IS PRECONCENTRATED BY PASSING THE WATER SAMPLE THROUGH AN XAD-4 RESIN COLUMN WITH ETHYL ACETATE AND FINAL DETERMINATION IS MADE BY PHASE HPLC USING FLUORESCENCE DETECTOR. REQ'D: WBC, MONCTON JUNE 1980.
882	SAMPLE IS EXTRACTED WITH MECL2, FRACTIONATED ON 10(FLORISIL CONCENTRATED, AND QUANTIFIED BY GLC WITH EC DETECTOR. REQ'D BY: WATER QUALITY LABORATORY, BURLINGTON, JULY, 1985.
886	ONE LITER OF ACIDIFIED SAMPLE IS EXTRACTED WITH ETHYL ETHER AFTER SATN. BY A SALT. THE EXT. IS CONCD., BROUGHT INTO

METHOD CODE	DESCRIPTION
886	ETHANOL AND ESTERIFIED TO THE ETHYL ESTER WHICH IS THEN CHROMATOGRAPHED ON ALUMINA AND QUANTIFIED BY GLC WITH AN EC DETECTOR. NOTE. CODE NO. REQUESTED BY WQB, CALGARY LAB., APR. 1974
891	COLUMN, GAS-LIQUID CHROMATOGRAPHY. THE METHOD IS IDENTICAL TO PARAMETER 18571. THE DETECTION LIMIT IS 0.5 UG/L. REQ'D BY: WQB OTTAWA, MARCH 1978. METHIOCARB UG/L
892	COLUMN, GAS-LIQUID CHROMATOGRAPHY. THE METHOD IS IDENTICAL TO PARAMETER 18571. THE DETECTION LIMIT IS 0.5 UG/L. REQ'D BY: WQB OTTAWA, MARCH 1978. NOTE: AN ALTERNATE NAME IS METMERCAPTURON. CARBAMATE ETPC UG/L
893	COLUMN/GAS-LIQUID CHROMATOGRAPHY. DETECTION LIMIT IS 0.5 UG/L. ETPC IS ETHYLTHIOPROPYLCARBAMATE REQ'D BY: IJC,PLUARG,TASK 'C', AGRICULTURAL WATERSHEDS STUDY MOBAM UG/L
900	THE ACIDIFIED WATER SAMPLE IS EXTD. WITH CH2C12 AND THE EXT. IS THEN ANALYSED BY GLC WITH AN EC DETECTOR. THE ANAL. IS CONFIRMED BY LIQ. CHROMATOGRAPHY AND BY GLC USING A NITROGEN SPECIFIC ALK. FLAME DETECTOR. NOTE. CODE NO. REQUESTED BY WQB, CALGARY LAB, MAY 1974
903	THE TOTAL OF ALL AVAILABLE OF THE FOLLOWING PARAMETERS 18415L,18416L,18420L,18425L,18430L,18435L, & 18440L. OF THE VALUES USED TO ARRIVE AT THE TOTAL, ANY TRACES (L0.1) WERE INCLUDED AS A VALUE OF 0.07. ATRAZINE AND DE-ETHYLATED ATRAZINE WERE COUNTED AS 0.02 WHEN A 0.0 VALUE WAS FOUND AND THE REST OF THE TRIAZINES AS 0.0. TRACE AND ZERO VALUES INTERPRETED BY R.FRANK ONT.PEST.LAB. REQ'D BY: IJC,PLUARG,TASK 'C', AGRICULTURAL WATERSHED STUDY.
911	HIGH PRESSURE LIQUID CHROMATOGRAPHY. WATER SAMPLES ARE SOLVENT EXTRACTED WITH DICHLOROMETHANE UNDER TWO DIFFERENT PH CONDITIONS. EXTRACTS ARE SUBJECTED TO ADSORPTION CHROMATOGRAPHY ON ALUMINA AND/OR SIZE EXCLUSION ON MICRO STYRAGEL TO REMOVE INTERFERRING SUBSTANCES. CARBAMATES ARE ANALYZED USING REVERSE PHASE HPLC WITH UV AND FLUORESCENCE DETECTORS. THE MOBILE PHASE USED IS 45:55 METHANOL/WATER AT A FLOW RATE OF 2 ML/MIN. QUANTITATION IS ACHIEVED BY MONITORING THE UV ADSORPTION AT 205 NM AS WELL AS THE FLUORESCENCE AT 313 NM OR 390 NM USING AN EXCITATION WAVELENGTH OF 254 NM. REF: B.K. AFGHAN AND J.F. RYAN "METHOD FOR THE DETERMINATION OF CARBAMATE PESTICIDES IN ENVIRONMENTAL SAMPLES BY HPLC MULTIDETECTOR SYSTEM", NWRI, BURLINGTON, ONT. REQ'D BY: WQB, OTTAWA, AUG. 1982.
918	HIGH PRESSURE LIQUID CHROMATOGRAPHY. CARBAMATES ARE EXTRACTED FROM SEDIMENT SAMPLES WITH ETHYL ACETATE AND THE ACTION OF A POLYTRON DISPERSATOR. THE RESULTANT EXTRACT IS CONCENTRATED AND SUBJECTED TO ADSORPTION CHROMATOGRAPHY ON ALUMINA AND/OR SIZE EXCLUSION CHROMATOGRAPHY ON MICRO STYRAGEL TO REMOVE INTERFERRING SUBSTANCES. SAMPLE EXTRACTS ARE ANALYZED BY HIGH PRESSURE LIQUID CHROMATOGRAPHY USING A MOBILE PHASE OF 45:55 METHANOL/WATER AT A FLOW RATE OF 2 ML/MIN. QUANTITATION IS ACHIEVED BY MONITORING THE UV ADSORPTION AT 205 NM AS WELL AS THE FLUORESCENCE AT 313 NM OR 390 NM USING AN EXCITATION WAVELENGTH OF 254 NM. REF: B.K. AFGHAN AND J.F. RYAN "METHOD FOR THE DETERMINATION OF CARBAMATE PESTICIDES IN ENVIRONMENTAL SAMPLES BY HPLC MULTIDETECTOR SYSTEM", NWRI, BURLINGTON, ONT. REQ'D BY: WQB, OTTAWA, AUG. 1982
926	COLUMN/GAS-LIQUID CHROMATOGRAPHY. THE SEDIMENT SAMPLE IS MOISTURIZED TO 20-30%, ACIDIFIED TO PH = 1, AND EXTRACTED WITH 1:1 MIXTURE OF ACETONE/HEXANE, AND THEN WITH METHYLENE CHLORIDE. THE SOLVENTS ARE CONCENTRATED AND THE RESIDUE DISSOLVED IN BENZENE. RESIDUES ARE REACTED WITH BF3- METHANOL FROM THE METHYL ESTER DERIVATIVE. THE ESTER IS EXTRACTED WITH BENZENE AND CLEANED UP ON SILICA GEL-NA2SO4. ELECTRON CAPTURE DETECTION IS USED TO IDENTIFY AND QUANTIFY THE HERBICIDE. REQ'D BY: WQB, CALGARY, JUNE 1980

METHOD CODE	DESCRIPTION
926	REF. A. PEAKE AND H. LESICK, METHOD FOR DETERMINATION OF PHENOXY ACID HERBICIDE IN SEDIMENTS.'' WQB, CALGARY.
928	THE SAMPLE IS EXTRACTED WITH MECL2. RESIDUES ARE DERIVATIZED TO THE CORRESPONDING PENTAFLUORO-BENZYL ESTERS. CLEAN-UP AND FRACTIONATION IS ACHIEVED ON A SILICA GEL COLUMN. ELECTRON CAPTURE GLC IS EMPLOYED FOR QUANTITATION. REQ'D BY: WQNL, BURLINGTON, JULY 1985.
936	COLUMN / GAS-LIQUID CHROMATOGRAPHY. THE SAMPLE IS EXTRACTED WITH ETHYL ACETATE AND MCPB IS SELECTIVELY BACK EXTRACTED INTO A 2% KHCO3 SOLUTION. THE HERBICIDE MCPB IS THEN ESTERIFIED WITH BCL3 / 2-CHLOROETHANOL REAGENT AND DERIVATIZED TO THE 2-CHLOROETHYL ESTER. ELECTRON CAPTURE GLC IS EMPLOYED TO QUANTIFY MCPB.RESIDUES. REF: AGEMIAN, H. AND CHAU, A.S.Y., " ANALYSIS OF PESTICIDE RESIDUES BY CHEMICAL DERIVATIZATION V. MULTIRESIDUE ANALYSIS OF EIGHT PHENOXYALKANOIC ACID HERBICIDES IN NATURAL WATERS," J.A.O.A.C., 60, 1070-1076, 1977 REQUESTED BY: WQB BURLINGTON, JAN. 1978
937	THE TOTAL OF ALL AVAILABLE OF THE FOLLOWING PARAMETERS 18500L,18510L,18520L, & 18530L. OF THE VALUES USED TO ARRIVE AT THE TOTAL, ANY TRACES (L0.1) WERE INCLUDED AS A VALUE OF 0.3. ANY ZERO'S FOUND WERE INCLUDED AS 0.0. TRACE AND ZERO VALUES INTERPRETED BY R.FRANK ONT.PEST.LAB. REQ'D BY: IJC,PLUARG,TASK 'C', AGRICULTURAL WATERSHED STUDY.
938	COLUMN/GAS-LIQUID CHROMATROGRAPHY. THE SAMPLE IS EXTRACTED WITH DICHLOROMETHANE (METHYLENE CHLORIDE). MCPA RESIDUES ARE DERIVATIZED TO THE CORRESPONDING PENTAFLUOROBENZYL ESTER AND CLEAN UP AND FRACTIONATION IS ACHIEVED ON A SILICA GEL COLUMN. ELECTRON CAPTURE GLC IS EMPLOYED TO QUANTIFY MCPA RESIDUES. REF: AGEMIAN, H. AND CHAU, A.S.Y. "DETERMINATION OF PESTICIDES BY DERIVATIVE FORMATION", PART IV. A SENSITIVE GAS-CHROMATOGRAPHIC METHOD FOR THE DETERMINATION OF MCPA AND MCPB HERBICIDES AFTER ESTERIFICATION WITH 1-BROMOMETHYL-2,3,4,5,6-PENTAFLUOROBENZENE ANALYST, 1976, VOL.101, PP 732-737. REG'D BY: WQB BURLINGTON, JUNE 1978.
951	THE SAMPLE IS ACIDIFIED, A SALT IS ADDED, AND THEN EXTD. WITH CH2CL2. THE EXT. IS ANALYSED BY GLC USING AN ALKALI FLAME DETECTOR. NOTE. CODE NO. REQUESTED BY WQB, CALGARY LAB., APRIL 1974
952	THE SAMPLE IS ACIDIFIED, NA2SO4 IS ADDED, AND THE SAMPLE IS EXTRACTED WITH METHYLENE CHLORIDE WHICH IS THEN PARTITIONED WITH BASE TO REMOVE PHENOLS AND ACIDS PRESENT IN THE EXTRACT CARBOFURAN IS HYDROLYZED TO ITS RESPECTIVE PHENOL, EXTRACTED FROM THE HYDROLYSIS SOLUTION AND DERIVATIZED WITH PENTAFLUOROBENZYL BROMIDE TO PRODUCE THE PENTAFLUOROBENZYL ETHER DERIVATIVE WHICH IS FRACTIONATED VIA COLUMN CHROMATOGRAPHY. IDENTIFICATION AND QUANTITATION IS BY COLUMN /GAS LIQUID CHROMOTOGRAPHY WITH AN EC DETECTOR. REF:COBURN, J.A., B.D. RIPLEY, AND A.S.Y. CHAU (1976). J.A.O.A.C. 59 225-236. REQ'D BY: WQB OTTAWA, MARCH 1978.
958	COLUMN/GAS LIQUID CHROMATOGRAPHY. THE SAMPLE IS EXTRACTED WITH ETHYL ACETATE. PICLORAM IS SELECTIVELY BACK-EXTRACTED INTO 2 PERCENT KHCO3 AND ESTERIFIED WITH PENTAFLUOROBENZYL BROMIDE. IDENTIFICATION AND QUANTITATION IS BY ELECTRON CAPTURE GLC. REQ'D BY: WQB, CALGARY, AUGUST 1978
980	GAS CHROMATOGRAPHY. REQ'D BY: GEMS-GLOWDAT, CCIW, SEPT. 1980.
982	WATER SAMPLES ARE SOLVENT EXTRACTED WITH HEXANE. THE EXTRACT IS CONCENTRATED AND CLEAN UP BY GEL PERMEATION AND ALUMINA-COLUMN CHROMATOGRAPHY TO REMOVE INTERFERING SUBSTANCES. ANALYSIS FOR PAHS IS BY ISOCRATIC REVERSE PHASE HIGH PRES-SURE LIQUID CHROMATOGRAPHY (HPLC) USING A MOBILE PHASE OF ACETONITRILE IN WATER. THE CHROMATOGRAPHED EXTRACT IS PASSED SEQUENTIALLY THROUGH ULTRAVIOLET ABSORPTION DETECTORS AT 254 NM AND 280 NM AND A FLUORESCENCE DECTOR WITH EXCITATION

ENVIRODAT/NAQUADAT METHOD CODES AND DESCRIPTIONS

METHOD CODE	DESCRIPTION
982	AT 280 NM AND EMISSION AT 389 NM. REF: B.K. AFGHAN AND R. WILKINSON, N.W.R.I. BURLINGTON. REQ'D BY: WQB, MONCTON, NOV. 1981.
991	THE EQUIVALENT OF 10 G SEDIMENT (DRYWEIGHT) IS EXTRACTED WITH ACETONITRILE A POLYTRON HOMOGENIZER. AFTER DECANTING THE ACETONITRILE, WATER IS ADDED AND THE PAH'S ARE EXTRACTED WITH HEXANE. THE DRIED AND CONCENTRATED EXTRACT IS THEN CLEANED UP ON AN ALUMINA COLUMN AND SUBJECTED TO HPLC ANALYSIS WITH GRADIENT ELUTION ON A SUITABLE REVERSE PHASE COLUMN SUCH AS THE 10 M SIL- X-ODS. IDENTIFICATION AND QUANTITATION IS ACCOMPLISHED WITH A FLUORESCENCE DETECTOR (UV ABSORBANCE DETECTOR OPTIONAL) WITH THE EXCITATION WAVELENGTH SET AT 280 NM (7-54) AND EMISSION =370 NM. REQ'D BY: WQB, MONCTON, NOV.1981.
1007	PAH'S ARE EXTRACTED FROM SEDIMENTS WITH ACETONE AND THE ACTION OF A POLYTRON DISPERSATOR. THE RESULTANT EXTRACT IS CONCENTRATED AND CLEANED UP BY GEL PERMEATION AND ALUMINA- COLUMN CHROMATOGRAPHY TO REMOVE INTERFERRING SUBSTANCES. THE THE EXTRACT IS THEN ANALYZED FOR PAH'S BY ISOCRATIC REVERSE PHASE HIGH PRESSURE LIQUID CHROMATOGRAPHY USING A MOBIL PHASE OF 82% ACETONITRILE IN WATER AT A FLOW RATE OF 1 ML PER MIN. THE CHROMATOGRAPHED EXTRACT IS SEQUENTIALLY FED INTO FLOW-THROUGH ULTRAVIOLET ABSORPTION DETECTORS AT 254 NM AND 280 NM AND A FLUORESCENCE DETECTOR WITH EXCITATION AT 280 NM AND EMISSON AT 389 N,. REF: B.K. AFGHAN AND R.J. WILKINSON, "AN IMPROVED METHOD FOR QUANTITATIVE ANALYSIS AND CONFIRMATION OF POLYNUCLEAR AROMATIC HYDROCARBONS IN ENVIRONMENTAL SAMPLES". REQ'D BY: WQB, OTTAWA, JULY, 1982.
1019	HIGH PRESSURE LIQUID CHROMATOGRAPHY. REQ'D BY: WATER QUALITY LABORATORY, CCIW, NOVEMBER, 1984. 1QUINOLINE SEDIMENTS MG/KG
1024	REQ'D BY: WATER QUALITY LABORATORY, BURLINGTON, NOV. 1984.
1038	CAPILLARY GC METHOD SIMILAR TO THAT FOR OCS AND PCBS. ALL PAHS ARE ELUTED IN FRACTION A WHICH IS ANALYZED ON CAPILLARY COLUMN GC FITTED WITH FLAME IONIZATION DECTOR. THE DETECTION LIMIT IS 0.05 UG/L. REQ'D BY: NATIONAL WATER QUALITY LAB,BURLINGTON, OCT. 1985. PHENANTHRENE NG/L
1042	THE TOTAL OF ANY VALUES STORED FOR ALDRIN, HEOD, HEPTA- CHLOR, HEPTACHLOR EPOXIDE, CHLORDANE AND ISOMERS, DDT AND ISOMERS, GAMMA-BHC, CAMPHECHLOR, ENDRIN, PARATHION, PARA- THION-METHYL, CARBARYL, 2,4-D, 2,4-D METHYL ESTER, P,P-METH- OXYCHLOR, AND DIAZINON. 'LESS THAN' VALUES (REDUCED BY 0.000001) ARE INCLUDED IN THE CALCULATION AND A'Q' IS USED TO INDICATE THE PRESENCE OF ONE OR MORE OF THESE VALUES IN THE SUMMATION. REQ'D BY: WQB, OTTAWA, AUGUST 1979.
1048	FLAME PHOTOMETRY BY DIRECT-INTENSITY MEASUREMENT.
1052	AT. ABSORPTION BY DIRECT ASPIRATION. THE ABSORPTION IS MEASURED AT 383 NM AND COMPARED WITH THOSE OF STD. KCL SOLNS. AN AIR-C2H2 FLAME IS USED. NOTE: CODE NO. REQUESTED BY FRESHWATER INST., WINNIPEG.
1058	ATOMIC ABSORPTION SPECTROSCOPY. THE SAMPLE IS ACIDIFIED WITH 5 ML 1:1 HNO3 PER LITRE, ASPIRATED AND THE ABSORPTION IS MEASURED AT 766.5 MU. AN AIR/PROPANE FLAME IS USED. REQ'D BY: WARD TECHNICAL SERVICES LAB, WINNIPEG, NOV. 1984.
1067	CALCULATED FROM THE CALCIUM HARDNESS VALUE: CA = 0.4 X CA HARDNESS. REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
1068	EDTA TITRN. WITH 'CALVER II' INDICATOR. IF TURBID, THE SAM- PLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. NAOH SOLN. AND 'CALVER II' INDICATOR ARE ADDED TO A FILTRATE ALIQUOT, WHICH IS THEN TITRATED WITH A STD. EDTA (DISODIUM DIHYDROGEN ETHYLENEDIAMINE TETRACETATE) SOLN. INTERFERENCES : TOTAL HEAVY METAL ION CONCN. OF 0.5 MG/L.

METHOD CODE	DESCRIPTION
1068	REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
1069	TITRATION WITH ETHYLENEDIAMINETETRAACETIC ACID AND ERIOCHROME BLUE SE AS INDICATOR .
1070	ATOMIC ABSORPTION. IF TURBID, THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. CACO3 SOLN. IS ADDED TO A FILTRATE ALIQUOT, WHICH IS THEN ASPIRATED. THE ABSORBANCE IS MEASURED SPECTROPHOTOMETRICALLY AT 422.7 MU, AND COMPARED WITH THOSE OF STD. CA SOLNS. AND A REAGENT BLANK. (20108): NO FILTRATION. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974. NOTE: IN THE CASE OF PRECIPITATION SAMPLES, A DECANTED ALIQUOT OF THE UNSHAKEN, UNFILTERED SAMPLE IS NORMALLY TAKEN FOR ANALYSIS. REF: WQB, NHRI, JULY, 1979.
1072	CALCD: FROM THE VALUES OF TOTAL HARDNESS AND MG DISSOLVED CA = TH*0.4-MG*1.649
1073	EDTA TITRN. WITH ERIOCHROME BLACK T AS INDICATOR. IF TURBID THE SAMPLE IS PASSED THROUGH A 0.45 U FILTER. INTERFERENCES: HEAVY METAL CONCNS. IN EXCESS OF 0.5 MG/L. (20109): MUREXIDE IS USED AS THE INDICATOR. REF: STD. METHODS FOR THE EXAMN. OF WATER AND WASTEWATER, AMERICAN PUBLIC HEALTH ASSOC., N.Y., 13TH ED., 1971, P. 84. NOTE: CODE NO. REQUESTED BY DEPT. OF FISHERIES AND ENVIRONMENT, FREDERICTON, NEW BRUNSWICK, NOV. 1974.
1089	ATOMIC ABSORPTION BY DIRECT ASPIRATION. THE SAMPLE IS DIGESTED WITH HNO3. THE PH OF THE SAMPLE IS ADJUSTED TO 1.6, THE SAMPLE IS ASPIRATED, AND THE ABSORBANCE IS MEASURED SPECTROPHOTOMETRICALLY AT 318.4 MU AND THEN COMPARED WITH THOSE OF STD. V2O5 SOLNS. A N2O-C2H2 FLAME IS USED. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
1090	ATOMIC ABSORPTION WITH SOLVENT EXTRN. THE SAMPLE IS DIGESTED WITH HNO3. THE PH OF THE SAMPLE IS ADJUSTED TO 1.6, BR2 WATER IS ADDED, AND THE SAMPLE WARMED UNTIL THE BR2 COLOUR VANISHES. A CUPFERRON (AMMONIUM N-NITROSOPHENYLHYDROXYLAMINE) SOLN. IS ADDED TO THE SAMPLE, WHICH IS EXTD. WITH N-BUTYL ACETATE, THEN THE SOLVENT LAYER IS ASPIRATED. THE ABSORBANCE IS MEASURED SPECTROPHOTOMETRICALLY AT 318.4 MU, AND COMPARED WITH THOSE OF IDENTICALLY PREPD. STD. V2O5 SOLNS. A N2O-C2H2 FLAME IS USED. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
1091	FLAMELESS ATOMIC ABSORPTION. DETECTION LIMIT IS 0.002 MG/L. REQ'D BY: AIR RESOURCES BRANCH, MOE, MAY 1983. WQB VANCOUVER, JULY 1975.
1095	ATOMIC ABSORPTION WITH SOLVENT EXTRACTION. SAMPLE IS DIGESTED WITH HNO3 AND H2O2. THE SAMPLE IS BROUGHT BACK TO ORIGINAL VOLUME WITH DEMIN. H2O AND PH IS ADJUSTED WITH NH4OH AND THYMOL BLUE AS INDICATOR. BR2 IS ADDED, SAMPLE IS WARMED UNTIL BR2 COLOR VANISHES. A CUPFERRON (AMMONIUM N-NITROSOPHENYL HYDROXYLAMINE) SOLUTION IS ADDED TO SAMPLE WICH IS EXTRACTED WITH N-BUTYL ACETATE. SOLVENT LAYER IS ASPIRATED INTO N2O-C2H2 REDUCING FLAME. ABSORBANCE IS MEASURED SPECTROPHOTOMETRICALLY AT 318.4 NM AND COMPARED WITH STANDARDS OF SAME REAGENT MATRIX AND PREPARED WITH V2O5. DISSOLVED: INSTEAD OF DIGESTION, FILTRATION THROUGH A 0.45 U MEMBRANE FILTER. SUSPENDED: THE FILTER CONTAINING THE REDIDUE IS DIGESTED. EXTRACTABLE: THE SAMPLE IS ACIDIFIED WITH DILUTE MINERAL ACID, SHAKEN AND LEFT OVERNIGHT, NO DIGESTION. REQ'D BY: WQB, CALGARY. APRIL 1980.
1098	ATOMIC ABSORPTION BY DIRECT ASPIRATION. IF TURBID, THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. THE PH OF THE FILTRATE IS ADJUSTED TO 1.6, BR2 WATER IS ADDED, AND THE THE SOLN. IS ASPIRATED, AND THE ABSORBANCE IS MEASURED SPECTROPHOTOMETRICALLY AT 318.4 MU AND THEN COMPARED WITH

METHOD CODE	DESCRIPTION
1098	THOSE OF STD. V2O5 SOLNS. A N2O-C2H2 FLAME IS USED. SUSPENDED: THE FILTER CONTAINING THE RESIDUE IS DIGESTED. EXTRACTABLE: THE SAMPLE IS ACIDIFIED WITH DILUTE MINERAL ACID, SHAKEN AND LEFT OVERNIGHT, NO DIGESTION. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
1107	ATOMIC ABSORPTION WITH SOLVENT EXTRACTION. SAMPLE PRESERVED TO PH < 2.0 WITH HNO3. FILTER THROUGH 0.45 U MEMBRANE FILTER. ALIQUOT IS DIGESTED WITH K2S2O8, TITRATED TO BROMPHENOL BLUE POINT WITH NH4OH UNTIL JUST BLUE, BACK TO PH 2.4 WITH H2SO4 AND CUPFERRON ADDED. THEN EXTRACTED WITH BUTYL ACETATE AND THE SOLVENT LAYER ASPIRATED INTO A REDUCING C2H2-N2O FLAOC. MEASURED AT 318.4 MU. REF: METHODS MANUAL, POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT, EDMONTON, 1978. NOTE: CODE REQUESTED BY POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT, SEP., 1978.
1112	TRIVALENT CHROMIUM IS OXIDIZED TO HEXAVALENT WITH POTASSIUM PERMANGANATE. THE CHROMIUM IS THEN DETERMINED WITH DIPHENYLCARBAZIDE .
1113	ATOMIC ABSORPTION BY DIRECT ASPIRATION. THE SAMPLE IS DIGESTED WITH HNO3 OR AQUA REGIA. THE PH OF THE SOLN. IS ADJUSTED TO 1.6,THE SOLN. IS ASPIRATED, AND THE ABSORBANCE IS MEASURED SPECTROPHOTOMETRICALLY AT THE APPROPRIATE WAVE LENGTH AND THEN COMPARED WITH THOSE OF STD. CR2O7 ION SOLNS. AN C2H2-AIR REDUCING FLAME IS USED. DISSOLVED: NO DIGESTION, FILTRATION THROUGH A 0.45 U MEMBRANE FILTER. EXTRACTABLE: NO DIGESTION, THE SAMPLE IS ACIDIFIED WITH DILUTE MINERAL ACID, SHAKEN AND LEFT OVERNIGHT. SUSPENDED: THE FILTER CONTAINING THE RESIDUE IS DIGESTED. MOLYBDENUM: 313.5 MU. C2H2-NO2 FLAME IS USED. CHROMIUM: 358.0 MU. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
1114	ATOMIC ABSORPTION WITH SOLVENT EXTN. THE SAMPLE IS DIGESTED WITH HNO3. THE PH OF THE SOLN. IS ADJUSTED TO 1.6, BR2 WATER IS ADDED, AND THE SOLN. WARMED UNTIL THE BR2 COLOUR VANISHES THE PH OF THE SOLN IS THEN ADJUSTED TO 3.5 WITH A BUFFER SOLN. AMMONIUM PYRROLIDINE DITHIOCARBAMATE SOLN. IS ADDED, AND THE SOLN. IS EXTD. WITH METHYL ISOBUTYL KETONE. THE SOLVENT LAYER IS ASPIRATED. THE ABSORBANCE IS MEASURED SPECTROPHOTOMETRICALLY AT 358.0 MU AND COMPARED WITH THOSE OF IDENTICALLY PREPD. STD. CR2O7 ION SOLNS. AN ACETYLENE-AIR REDUCING FLAME IS USED. DISSOLVED: NO DIGESTION; FILTRATION THROUGH A 0.45 U MEMBRANE FILTER SUSPENDED: THE FILTER CONTAINING THE RESIDUE IS DIGESTED. EXTRACTABLE: NO DIGESTION; THE SAMPLE IS ACIDIFIED WITH DILUTE MINERAL ACID, SHAKEN AND LEFT OVERNIGHT. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
1116	ATOMIC ABSORPTION WITH DIRECT ASPIRATION. PRECONCENTRATION. THE SAMPLE IS DIGESTED WITH HNO3, THE PH OF THE SOLUTION IS ADJUSTED TO 1.6, THE SOLUTION IS ASPIRATED AND THE ABSORBANCE IS MEASURED SPECTROPHOTOMETRICALLY AT 358.0 MU. AND THEN COMPARED WITH THOSE OF STANDARD CR2O7 ION SOLUTION. WITH NITROUS OXIDE AND ACETYLENE FLAME. SAMPLE IS SPIKED WITH 1000 MG/L K+. DETECTION LIMIT IS 1.0 UG/L. REQ'D BY: IJC,PLUARG,TASK 'C',AGRICULTURAL WATERSHEDS STUDY.
1120	CALCULATED LOADING FROM CONCENTRATION (MG/L) AND FLOW (CFS) REQ'D BY: SYSTEMS & COMPUTING BRANCH, ALBERTA ENVIRONMENT, MARCH 1975.
1122	ATOMIC ABSORPTION AFTER THE SAMPLE IS PRE-TREATED AS FOLLOWS: A 250 MG PORTION OF A DISAGGREGATED DRIED SEDIMENT IS TRANSFERRED TO A TEFLON-LINED DIGESTION BOMB AND WETTED WITH AQUA REGIA (2.5 ML) AND HF (15 ML). THE SEALED BOMB IS HEATED AT 100 DEG.C. IN AN OVEN FOR 30 MINUTES, COOLED, AND THE CONTENTS QUANTITATIVELY TRANSFERRED TO A 250 ML POLYPROPYLENE BOTTLE CONTAINING BORIC ACID (12.0 G) AND DEIONIZED WATER (50 ML). THE SAMPLE IS SHAKEN UNTIL SOLUTION IS COMPLETE. THE SAMPLE IS QUANTITATIVELY TRANSFERRED TO A GLASS 250 ML VOLUMETRIC FLASK AND DILUTED TO VOLUME. THE SAMPLE IS STORED IN A POLYPROPYLENE BOTTLE UNTIL ATOMIC WITH SOLVENT EXTN. THE SAMPLE IS DIGESTED WITH HNO3.

ENVIRODAT/NAQUADAT METHOD CODES AND DESCRIPTIONS

METHOD CODE	DESCRIPTION
1122	THE PH OF THE SOLN. IS ADJUSTED TO 1.6 BR2 WATER IS ADDED, AND THE SOLN. WARMED UNTIL THE BR2 COLOUR VANISHES. THE PH OF THE SOLN. IS ADJUSTED TO 3.5 WITH A BUFFER SOLN. AMINIUM PYRROLIDINE DITHIOCARBAMATE SOLN. IS ADDED, AND THE SOLN. IS EXTD. WITH METHYL ISOBUTYL KETONE. THE SOLVENT LAYER IS ASPIRATED. THE ABSORBANCE IS MEASURED SPECTROPHOTOMETRICALLY AT 358.0 MU. AND COMPARED WITH THOSE OF IDENTICALLY PREPD. STD. CR2O7 ION SOLNS. AN ACETYLENE-AIR REDUCING FLAME IS USED. BLANK SOLNS ARE CARRIED THROUGH THE DIGESTION PROCEDURE AND STDS ARE PREPARED WITH AQUA REGIA, HF AND BORIC ACID TO MATCH THE SAMPLE SOLUTION AFTER DECOMPOSITION. REF: BUCKLEY, D.E. AND CRANSTON, R.E., CHEMICAL GEOLOGY, 7, 273 (1971). NOTE: PARAMETER CODE REQUESTED BY WQB, MONCTON, MAY 1975.
1123	ATOMIC ABSORPTION BY DIRECT ASPIRATION. AN OPEN DIGESTION IS USED. THE ABSORBANCE IS MEASURED AT 357.9 . AN ACETYLENE-AIR OXIDIZING FLAME IS USED. REQ'D BY: WQB ,BURLINGTON. AUG. 1986
1127	COLOURIMETRIC WITH DIPHENYLCARBAZIDE.
1128	ATOMIC ABSORPTION WITH SOLVENT EXTRACTION. THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. AN ALIQUOT OF SAMPLE IS ADJUSTED TO PH 3.5 WITH BUFFER SOLUTION AND AMMONIUM PYRROLIDINE DITHIOCARBAMATE SOLUTION IS ADDED. THE ALIQUOT IS THEN EXTRACTED WITH METHYL ISOBUTYL KETONE AND THE SOLVENT LAYER ASPIRATED. THE ABSORPTION IS MEASURED SPECTROPHOTOMETRICALLY AT 357.9 MU AND COMPARED WITH THOSE OF IDENTICALLY PREPARED CR+6 SOLUTIONS. AN ACETYLENE - AIR REDUCING FLAME IS USED. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974. REQ'D BY: POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT, JULY 1979
1132	ICAP METHOD. SIMILAR TO 48311 BUT USING FILTERED SAMPLE. DETECTION LIMIT IS 0.0001 MG/L REQ"D BY: WQB LABORATORY. BURLINGTON, OCT. 1985. CHROMIUM DISSOLVED CR UG/L
1139	ATOMIC ABSORPTION WITH SOLVENT EXTRACTION. SAMPLE IS PRESERVED WITH HNO3. PRIOR TO ANALYSIS FILTER THROUGH 0.45 U MEMBRANE FILTER. THE SAMPLE IS DIGESTED WITH H2SO4 AND HNO3. PH ADJUSTED TO 5.5 I 0.5 AND WARMED WITH BR2 WATER. PH THEN ADJUSTED TO 3.6 WITH BUFFER. DIETHYLDITHIOCARBAMATE ADDED, AND SOLUTION EXTRACTED WITH MIBK. SOLVENT LAYER ASPIRATED AND MEASURED AT 357.9 MU IN C2H2-N20 FLAME. REF: METHODS MANUAL, POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT, EDMONTON, 1978. NOTE: CODE REQUESTED BY POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT, SEP., 1978.
1143	ATOMIC ABSORPTION SPECTROMETRY WITHOUT FLAME \GRAPHITE FURNACE'. WAVE LENGTH IS 357,9 NM. REQ'D BY: ENVIRONMENT QUEBEC, 1988.
1149	ATOMIC ABSORPTION WITH SOLVENT EXTN. THE SAMPLE IS DIGESTED WITH HNO3. THE PH OF THE SAMPLE IS THEN ADJUSTED TO 10-11 WITH A NH3 SOLN. THIS SOLN. IS EXTD. WITH METHYL ISOBUTYL KETONE CONTG. 8-HYDROXYQUINOLINE, AND THE SOLVENT LAYER ASPIRATED. THE ABSORBANCE IS MEASURED SPECTROPHOTOMETRICALLY AT 279.8 MU, AND COMPARED WITH THOSE OF IDENTICALLY PREPD. STD. MN+2 ION SOLNS. AND A REAGENT BLANK. AN ACETYLENE-AIR OXIDIZING FLAME IS USED. DISSOLVED: THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER; NO DIGESTION. SUSPENDED: THE FILTER CONTAINING THE RESIDUE IS DIGESTED. EXTRACTABLE: THE SAMPLE IS ACIDIFIED WITH DILUTE MINERAL ACID, SHAKEN AND LEFT OVERNIGHT. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
1151	COLORIMETRIC METHOD - REAGENTS: SODIUM BISMITHATE AND NITRIC ACID. READ ON SPEC 20. REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
1159	SPOT TEST WITH TETRABASE. IF TURBID, THE SAMPLE IS PASSED

METHOD CODE DESCRIPTION

1159 THROUGH A 0.45 U MEMBRANE FILTER. THEN NH4OH SOLN., KIO4 SOLN., AND A BUFFER (PH=4.75) ARE ADDED IN TURN TO A FILTRATE ALIQUOT. TETRABASE (TETRAMETHYLDIAMINODIPHENYLMETHANE) SOLN. IS ADDED. THE RESULTING COLOUR IS IMMEDIATELY VISUALLY COMPARED WITH THOSE OF SIMULTANEOUSLY AND IDENTICALLY PREPD. STD. MNO4 ION SOLNS. AND A REAGENT BLANK.
REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.

1160 COLORIMETRIC WITH PERIODATE .
MANGANESE DISSOLVED MN MG/L

1161 ATOMIC ABSORPTION BY DIRECT ASPIRATION. IF TURBID, THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. THE ACIDIFIED FILTRATE IS ASPIRATED. THE ABSORBANCE IS MEASURED SPECTROPHOTOMETRICALLY AT THE APPROPRIATE WAVE LENGTH, AND COMPARED WITH THOSE OF STD. MN+2 (MANGANOUS) ION SOLNS. AN ACETYLENE-AIR OXIDIZING FLAME IS USED.
SUSPENDED: THE FILTER CONTAINING THE RESIDUE IS DIGESTION WITH HNO3.
TOTAL: THE SAMPLE IS DIGESTED WITH HNO3; NO FILTRATION.
EXTRACTABLE: THE SAMPLE IS ACIDIFIED WITH DILUTE MINERAL ACID, SHAKEN AND LEFT OVERNIGHT.
CADMIUM: 228.8 MU. TIN: 224.6 MU. MANGANESE: 279.8 MU.
REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.

1170 ATOMIC ABSORPTION. THE ABSORBANCE IS MEASURED AT THE APPROPRIATE WAVE LENGTH AND COMPARED WITH STANDARD SOLUTIONS.
COBALT: 240.7 MU. MANGANESE: 279.5 MU. NICKEL: 232.0 MU.
TIN : 286.3 MU MOLYBDENUM: 313.3 MU. COPPER: 324.7 MU.
LEAD : 217.0 MU.

1171 COLOURIMETRIC WITH PERIODATE.

1172 ATOMIC ABSORPTION BY DIRECT ASPIRATION. THE SAMPLE IS ACIDIFIED WITH DIL. MINERAL ACID, SHAKEN, AND LEFT OVERNIGHT. THE SAMPLE IS THEN ASPIRATED. THE ABSORBANCE IS MEASURED SPECTROPHOTOMETRICALLY AT 279.8 MU, AND COMPARED WITH THOSE OF STD. MN+2 (MANGANOUS) ION SOLNS. AN ACETYLENE-AIR OXIDIZING FLAME IS USED. THE DETECTION LIMIT IS 10 UG/L.
REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
MANGANESE EXTRBLE. MN MG/L

1180 COLOURIMETRY WITH TPTZ ON AN AUTOANALYZER. THE SAMPLE IS DIGESTED WITH HNO3. A SAMPLE ALIQUOT IS MIXED WITH HCL FOLLOWED BY HYDROXYLAMINE HYDROCHLORIDE (NH2OH.HCL) SOLN. THIS IS MIXED WITH TPTZ (2,4,6-TRIPYRIDYL-S-TRIAZINE) SOLN., THEN WITH BUFFER (PH=4.75) SOLN. THE RESULTING COLOUR IS SPECTROPHOTOMETRICALLY MEASURED AT 588 MU, AND COMPARED WITH THOSE OF IDENTICALLY PREPD. STD. FE+2 ION SOLNS. INTERFERENCE PRECIPITABLE ORG. COMPDS.
DISSOLVED: IF TURBID, THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER.
SUSPENDED: THE SAMPLE IS ACIDIFIED WITH DILUTE MINERAL ACID, SHAKEN AND LEFT OVERNIGHT.
REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.

1183 ATOMIC ABSORPTION WITH SOLVENT EXTN. THE SAMPLE IS DIGESTED WITH HNO3. THE PH OF AN ALIQUOT OF THIS SOLN. IS ADJUSTED TO 4.75 WITH A BUFFER SOLN. AMMONIUM PYRROLIDINE DITHIOCARBAMATE SOLN. IS ADDED TO THE ALIQUOT, WHICH IS THEN EXTD. WITH METHYL ISOBUTYL KETONE. THE ABSORBANCE IS MEASURED SPECTROPHOTOMETRICALLY AT THE APPROPRIATE WAVE LENGTH AND COMPARED WITH THOSE OF IDENTICALLY PREPD. STD. METAL ION SOLNS. AN ACETYLENE-AIR OXIDIZING FLAME IS USED.
DISSOLVED: IF TURBID, THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER.
SUSPENDED: THE FILTER CONTAINING THE RESIDUE IS DIGESTED.
EXTRACTABLE: THE SAMPLE IS ACIDIFIED WITH DILUTE MINERAL ACID, SHAKEN AND LEFT OVERNIGHT.
(27004): DIGESTED WITH AQUA REGIA.
(29108) & (30108) & (48104) & (82105): FIELD FILTERED THROUGH A 0.60 UM NUCLEOPORE FILTER; DIGESTION.
(29010) & (30007) & (48007) & (82007): PRECONCENTRATION.
COBALT: 240.7 MU. NICKEL: 232.0 MU. COPPER: 324.7 MU.
IRON : 248.3 MU. ZINC: 213.8 MU. ANTIMONY: 217.6 MU.

METHOD CODE DESCRIPTION

1183 LEAD : 283.3 MU. CADMIUM: 228.8 MU. TIN: 224.6 MU.
REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.

1184 MANUAL HCL + HYDROXYLAMINE DIGESTION COLOURIMETRY BY AUTOANALYSER WITH O-PHENATHROLINE METHOD.
(26007): MANUAL COLORIMETRY.
REQ'D BY: IJC,PLUARG,TASK 'C',AGRICULTURAL WATERSHEDS STUDY.

1185 HACH TEST KIT.
REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.

1186 HACH TEST KIT
REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
IRON TOTAL FE MG/L

1193 COLOURIMETRIC WITH ALPHA,ALPHA-DIPYRIDYL.

1195 COLORIMETRIC WITH PHENANTHROLINE.

1196 ATOMIC ABSORPTION BY DIRECT ASPIRATION. IF TURBID, THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. THE ACIDIFIED FILTRATE IS ASPIRATED. THE ABSORBANCE IS MEASURED SPECTROPHOTOMETRICALLY AT 248.3 MU, AND COMPARED WITH THOSE OF STD. FE+3 SOLNS. AN ACETYLENE-AIR OXIDIZING FLAME IS USED. THE DETECTION LIMIT IS 50 UG/L.
REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
IRON DISSOLVED FE MG/L

1198 SPOT TEST WITH TETRABASE.

1211 OXIDATION TO TRIVALENT IRON WITH POTASSIUM PERSULPHATE FOLLOWED BY DETERMINATION WITH POTASSIUM THIOCYANATE.

1224 ATOMIC ABSORPTION WITH SOLVENT EXTRACTION. THE SAMPLE IS DIGESTED WITH HNO3 AND H2O2 TO NEAR DRYNESS. HCL IS ADDED AND DIGESTION IS REPEATED. FIXED QUANTITY OF HCL IS ADDED THEN BROUGHT BACK TO ORIGINAL VOLUME WITH DEMIN. H2O. THE PH IS AJUSTED TO APPROXIMATELY 4. USING NH4OH, HCL AND METHYL ORANGE-BROMOCRESOL GREEN INDICATOR. THE FINAL PH IS ADJUSTED TO 4.75 WITH SODIUM ACETATE BUFFER. AMMONIUM PYRROLIDINE DITHIOCARBAMATE SOLUTION IS ADDED AND ALIQUOT IS EXTRACTED WITH METHYL ISOBUTYL KETONE. THE SOLVENT LAYER IS ASPIRATED INTO AN AIR ACETYLENE OXIDIZING FLAME. THE ABSORBANCE IS MEASURED SPECTROPHOTOMETRICALLY AT THE APPROPRIATE WAVE LENGTH AND COMPARED TO STANDARDS CONTAINING SAME REAGENT MATRIX.
COBALT: 240.7 MU. NICKEL: 232.0 MU. COPPER: 324.7 MU.
LEAD : 283.3 MU. CADMIUM: 228.8 MU. ZINC: 213.8 MU.
REQ'D BY: WQB, CALGARY, APRIL 1980.

1226 ATOMIC ABSORPTION AFTER THE SAMPLE IS PRE-TREATED AS FOLLOWS:
A 250 MG PORTION OF A DISAGGREGATED DRIED SEDIMENT IS TRANSFERRED TO A TEFLON-LINED DIGESTION BOMB AND WETTED WITH AQUA REGIA (2.5 ML) AND HF (15ML). THE SEALED BOMB IS HEATED AT 100 DEG.C. IN AN OVEN FOR 30 MINUTES, COOLED, AND THE CONTENTS QUANTITATIVELY TRANSFERRED TO A 250 ML POLYPROPYLENE BOTTLE CONTAINING BORIC ACID (12.0 G) AND DEIONIZED WATER (50 ML). THE SAMPLE IS SHAKEN UNTIL SOLUTION IS COMPLETE. THE SAMPLE IS QUANTITATIVELY TRANSFERRED TO A GLASS 250 ML VOLUMETRIC FLASK AND DILUTED TO VOLUME. THE SAMPLE IS STORED IN A POLYPROPYLENE BOTTLE UNTIL ANALUSED. THE PH OF AN ALIQUOT OF THIS SOLN IS ADJUSTED TO 4.75 WITH BUFFER SOLN. AMMONIA PYRROLIDINE DITHIOCARBAMATE SOLN. IS ADDED TO THE ALIQUOT, WICH IS EXTD. WITH METHYL ISOBUTYL KETONE. THE SOLVENT LAYER IS THEN ASPIRATED. THE ABSORBANCE IS MEASURED SPECTROPHOTOMETRICALLY AT THE APPROPRIATE WAVE LENGTH, AND COMPARED WITH THOSE OF IDENTICALLY PREPD. STD. CO+2 ION SOLNS. AN ACETYLENE-AIR OXIDIZING FLAME IS USED.
COBALT: 240.7 MU. NICKEL: 232.0 MU. COPPER: 324.7 MU.
ZINC : 213.8 MU. CADMIUM: 228.8 MU.
REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.

1232 ATOMIC ABSORPTION USING A GRAPHITE FURNACE.
COBALT DISSOLVED CO MG/L

1240 ATOMIC ABSORPTION. THE ABSORBANCE IS MEASURED AT 240.7 MU AND COMPARED WITH STANDARD SOLUTIONS.
COBALT EXTRBLE. CO MG/L

ENVIRODAT/NAQUADAT METHOD CODES AND DESCRIPTIONS

METHOD CODE	DESCRIPTION
1249	DIRECT ASPIRATION WITHOUT SOLVENT EXTRACTION. THE SAMPLE IS DIGESTED WITH C.HNO3. ATOMIC ABSORPTION AT 445 NM WITH ACETYLENE-AIR FLAME. (28007 & 28307): DIGESTED WITH AQUA REGIA. REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
1250	SAME AS PARAMETER 28001 BUT WITH PRECONCENTRATION DETECTION LIMIT OF 1.0 UG/L REQ'D BY: IJC,PLUARG,TASK 'C',AGRICULTURAL WATERSHEDS STUDY. NICKEL TOTAL NI MG/L
1252	SAME AS 28004 EXCEPT THE SAMPLE IS DIGESTED WITH AQUA-REGIA. REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977. NICKEL TOTAL NI MG/L
1254	METHOD IDENTICAL TO PARAMETER 48011 BUT MEASURED AT 231.6 MU THE DETECTION LIMIT IS 2 UG/L. REQ'D BY: POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT JULY, 1979. NICKEL TOTAL H2O NI UG/L
1277	THE SAMPLE IS DRIED WITH AN IR LAMP AND THEN GROUND TO <NO.4 US STD. MESH SIZE. A 0.5G PORTION IS TRANFERRED TO A 200ML VOL. FLASK AND 2ML H2O AND 10ML AGUA REGIA ARE ADDED TO IT. THE MIXT. IS LEFT OVERNIGHT. THE VOL. IS THEN COMPLETED WITH DISTD. WATER, SHAKEN, AND LEFT FOR APPROX. 5HR TO ALLOW THE INSOL. MATERIALS (E.G. SILICATES) TO SETTLE. THE SUPERNATANT LIQ. IS USED TO DET. NI CONCN. BY ATOMIC ABSORPTION BY DIRECT ASPIRATION. THE SAMPLE IS ACIDIFIED WITH DIL. MINERAL ACID, SHAKEN AND LEFT OVERNIGHT. THE SOLN. IS ASPIRATED. THE ABSORBANCE IS MEASURED SPECTROPHOTOMETRICALLY AT THE APPROPRIATE WAVE LENGTH, AND COMPARED WITH THOSE OF STD. METAL SOLNS. AN ACETYLENE-AIR OXIDIZING FLAME IS USED. THE MOISTURE IS DETD. IN ANOTHER PORTION OF THE SAMPLE. NICKEL: 232.0 MU. COPPER: 324.7 MU. CADMIUM: 228.8 MU. ZINC : 213.8 MU. LEAD: 220.3 MU. NOTE: METHOD SUBMITTED BY WQB, CALGARY, JULY 23, 1973.
1295	COLOURIMETRY WITH DIETHYLDITHIOCARBAMATE.
1296	SPOT TEST WITH DITHIZONE.
1309	COLOURIMETRIC WITH NEOCUPROINE. AND COMPARED WITH STANDARD SOLUTIONS.
1314	AT. ABSORPTION USING THE HEATED GRAPHITE (MASSMAN) FURNACE. NOTE: CODE NO. REQUESTED BY FRESHWATER INST., WINNIPEG. COPPER EXTRBLE. CU MG/L
1337	COLOURIMETRIC WITH ZINCON.
1339	COLOURIMETRIC WITH DITHIZONE. THE DET. LIMIT IS 0.01 MG/L. ZINC DISSOLVED ZN MG/L
1350	COLOURIMETRIC WITH DITHIZONE.
1354	THIS METHOD IS IDENTICAL TO THAT OF PARAMETER CODE 30304 EXCEPT WITH PRECONCENTRATION. DETECTION LIMIT IS 1 UG/L. REQ'D BY: DALHOUSIE UNIVERSITY, JULY 1976. ZINC EXTRBLE. ZN MG/L
1361	APDC
1362	COLOURIMETRY WITH SILVER DIETHYL DITHIOCARBAMATE. THE SAMPLE IS DIGESTED WITH HNO3. HCL, KI, AND SNCL2 SOLNS ARE ADDED IN TURN TO AN ALIQUOT OF THE SAMPLE SOLN. AFTER 1 HR, ZN METAL IS ADDED. THE ARSINE EVOLVED IS PASSED THROUGH A LEAD ACETATE SCRUBBER AND ABSORBED IN SILVER DIETHYL DITHIOCARBAMATE SOLN. IN PYRIDINE. THE RESULTING COLOUR IS MEASURED SPECTROPHOTOMETRICALLY AT 540 MU, AND COMPARED WITH THOSE OF IDENTICALLY PREPD. STD. AS SOLNS. INTERFERENCES: SB AND OTHER HEAVY METAL IONS AT HIGH CONCNS. EXTRACTABLE: THE SAMPLE IS ACIDIFIED WITH DILUTE MINERAL ACID, SHAKEN, AND LEFT OVERNIGHT. NO DIGESTION. (33006): NO DIGESTION. DISSOLVED: IF TURBID, THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER; NO DIGESTION. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.

METHOD CODE DESCRIPTION

1363 H2SO4 + HNO3 DIGESTION AUTOMATED BH4- REDUCTION, FLAMELESS AA, 193 NM.
(33010): SAMPLE AGITATED WHILE BEING PUMPED INTO AUTO-ANALYSER MANIFOLD.
REQ'D BY: IJC,PLUARG,TASK 'C',AGRICULTURAL WATERSHEDS STUDY.

1367 INDUCTIVELY-COUPLED ARGON PLASMA. ALL ORGANOARSENIDES AND ORGANOSELENIDES ARE DECOMPOSED WITH ACIDIC PERSULPHATE. AFTER REDUCTION TO ARSENITE AND SELENITE WITH HCL, THE METALS ARE CONVERTED TO THEIR RESPECTIVE HYDRIDES WITH SODIUM BOROHYDRIDE IN AN AUTOMATED SYSTEM AND PASSED TO AN ARGON PLASMA TORCH WHERE THEY ARE DECOMPOSED AND MEASURED BY EMISSION SPECTROSCOPY.
FOR DISSOLVED, THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER.
REF: GOULDEN, PD, DHJ ANTHONY AND KD AUSTEN, 1981. DETERMINATION OF ARSENIC AND SELENIUM IN WATER, FISH AND SEDIMENTS B INDUCTIVELY COUPLED ARGON PLASMA EMISSION SPECTOMETRY.
ANALYTICAL CHEMISTRY, 53, 2027-2029.
REF: WQB ANALYTICAL METHODS MANUAL, 1982.
REQ'D BY: WQB, BURLINGTON, APRIL 1981.

1368 ATOMIC ABSORPTION WITH GRAPHITE FURNACE. 3 ML HNO3 AND 3 ML H2O2 ARE ADDED TO 100 ML OF SAMPLE. HEAT GENTLY ON A HOT PLATE TO EVAPORATE TO LESS THAN 50 ML. COOL THE SAMPLE THEN BRING IT BACK TO 100 ML WITH DISTILLED WATER. ANALYSIS IS DONE WITH AAGF USING THE SET UP WRITTEN IN THE INSTRUMENT'S MANUAL AND USING THE MATRIX MODIFICATION WITH NI (NO3)2, 1000PPM.
REQ'D BY: LABORATOIRE QUALITE D'EAU, LONGUEUIL, AUG.1982.

1370 ATOMIC ABSORPTION WITH HYDRIDE GENERATION. ALIQUOTS OF PRESERVED SAMPLES AND STANDARDS ARE MANUALLY DIGESTED WITH H2SO4, HNO3, AND HCLO4. ARSENIC IS REDUCED TO ARSINE WITH NABH4 IN ACIDIC SOLUTION AND IS THEN SPARGED INTO A HEATED QUARTZ COMBUSTION TUBE WHICH DECOMPOSES THE HYDRIDE TO FORM ARSENIC ATOMS. THE ABSORBANCE IS MEASURED SPECTROPHOTOMETRICALLY AT 193.7 NM.
REF: METHODS MANUAL FOR CHEMICAL ANALYSIS OF WATER AND WASTES, ALBERTA ENVIRONMENTAL CENTRE. 1979.
REQ'D BY: ALBERTA ENVIRONMENTAL CENTRE, MAY, 1985.

1371 ATOMIC ABSORPTION SPECTROMETRY WITH AN ARGON-HYDROGEN FLAME USING THE METHOD OF CONCENTRATION BY GENERATION OF HYDRURES WITH A WAVE LENGHT OF 193,7 NM.
REQUIRED BY ENVIRONMENT QUEBEC, 1988.

1372 FLAMELESS ATOMIC ABSORPTION. THE SAMPLE IS DIGESTED WITH HNO3, HCLO4, KMNO4, K2S2O8 AND HF. FOLLOWING OXIDATION AND COMPLETE SOLUBILIZATION AN AUTOMATED SYSTEM IS USED TO DETERMINE ARSENIC BY REDUCTION AND QUARTZ TUBE ATOMIC ABSORPTION SPECTROMETRY. INORGANIC ARSENIC SPECIES ARE FIRST REDUCED TO ASIII WITH HCL AT 95OC. THE HYDRIDE IS FORMED BY THE ACTION OF NABH4 IN ACIDIC SOLUTION. THE HYDRIDE IS SPARGED INTO A QUARTZ TUBE CELL AND DECOMPOSES AT 800 DEG C TO FORM ARSENIC ATOMS. THE ABSORBANCE IS MEASURED SPECTROPHOTOMETRICALLY AT THE APPROPRIATE WAVE LENGTH. ARSENIC: 193.7 MU, SELENIUM: 196 MU.
REF: AGEMIAN, HAIG AND BEDEK, E."A METHOD FOR THE DETERMINATION OF TOTAL ARSENIC AND SELENIUM IN SEDIMENTS", ANAL. CHIM. ACTA,119,323(1980).
REQ'D BY: WQB, BURLINGTON, DEC. 1979.
****** APPROVED WATER QUALITY BRANCH METHOD ******

1373 ICAP METHOD. ARSENIC AND SELENIUM ARE EXTRACTED FROM SOILS AND SEDIMENTS BY FUSION WITH SODIUM HYDROXIDE AT 350 DEG C. AFTER REDUCTION TO ARSENITE AND SELENITE WITH HCL, THE METALS ARE CONVERTED TO THEIR RESPECTIVE HYDRIDES WITH SODIUM BOROHYDRIDE IN AN AUTOMATED SYSTEM AND PASSED TO AN ARGON PLASMA TORCH WHERE THEY ARE DECOMPOSED AND MEASURED BY EMISSION SPECTROSCOPY.
FISH TISSUE: THE ARSENIC AND SELENIUM ARE EXTRACTED BY DIGESTION WITH A COMBINATION OF NITRIC, PERCHLORIC AND SULPHURIC ACID AFTER REDUCTION TO ARSENITE AND SELENITE WITH HCL.
REF: GOULDEN, PD, DHJ ANTHONY AND KD AUSTEN, 1981. DETERMINATION OF ARSENIC AND SELENIUM IN WATER, FISH AND SEDIMENTS B INDUCTIVELY COUPLED ARGON PLASMA EMISSION SPECTROMETRY.
ANALYTICAL CHEMISTRY, 53, 2027-2029.
REF: WQB ANALYTICAL METHODS MANUAL, 1982.

METHOD CODE	DESCRIPTION
1373	REQ'D BY: WQB, BURLINGTON, APRIL 1981.
1374	THE SAMPLE IS SIEVED AND WEIGHED ACCURATELY IN A POLYPROPYLENE WIDE MOUTH BOTTLE. 0.5N HCL IS ADDED AND THE SAMPLE IS TIGHTLY CAPPED AND SHAKEN FOR 16 HOURS. THE SAMPLE IS THEN ANALYSED BY FLAMELESS ATOMIC ABSORPTION. OXYDATION AND COMPLETE SOLUBILIZATION ON AN AUTOMATED SYSTEM IS USED TO DETERMINE ARSENIC BY REDUCTION AND QUARTZ TUBE ATOMIC ABSORPTION SPECTROMETRY. INORGANIC ARSENIC SPECIES ARE FIRST REDUCED TO ASIII WITH HCL AT 950 C. THE HYDRIDE IS SPARGED INTO A QUARTZ TUBE CELL AND DECOMPOSES AT 800 C TO FORM ARSENIC ATOMS. THE ABSORBANCE IS MEASURED SPECTROMETRICALLY AT 193.7 NM. REF: AGEMIAN, HAIG AND BEDEK,E. "A METHOD FOR THE DETERMINATION OF ARSENIC AND SELENIUM IN SEDIMENTS", ANAL. CHIM. ACTA,119323 (1980). REQ'D BY: WQB, MONCTON, N.B., MARCH 1981.
1378	COLOURIMETRY WITH REDUCING AGENT NA2S2O5 + NA2S2O3 + H2SO4, AND MIXED REAGENT (NH4)6MO7O24 + ASCORBIC ACID. IF TURBID THE SAMPLE IS FILTERED THROUGH A 0.45 U FILTER THEN DIGESTED BY PHOTO-OXIDATION. AFTER A WAITING PERIOD OF 90 MIN TO ALLOW FOR COLOUR DEVELOPMENT THE ABSORPTIONS AT 865 NM OF REDUCED AND NON-REDUCED SAMPLE ARE MEASURED. THE AS CONCN. IS CALCD. FROM THE DIFFERENCE BETWEEN THE TWO ABSORPTIONS. REF: JOHNSON, D.L., ENVIRON. SCI. & TECHNOL., 5, 411 (1971). NOTE: CODE NO. REQUESTED BY FRESHWATER INST., WINNIPEG.
1381	THE SAMPLE IS ACIDIFIED WITH HCL IN THE LAB, THEN TREATED WITH NABH4 TO FORM THE VOLATILE ASH3. THE HYDRIDE IS PURGED OUT OF SOLN. BY THE EXCESS #2 GENERATED BY NABH4 REACTING WITH HCL. THE GAS MIXT. IS INTRODUCED INTO AN AR-H2 FLAME AND ANALYSED BY AT. ABSORPTION. NOTE: CODE NO. REQUESTED BY WQB, MONCTON, APRIL 1974.
1385	FLAMELESS ATOMIC ABSORPTION. SAMPLES ARE DIGESTED IN A MIXTURE OF HNO3, HCLO4, AND H2SO4 IN TEST TUBES IN AN ALUMINUM HOT BLOCK. AFTER COMPLETE SOLUBILIZATION OF THE FISH TISSUE AND OXIDATION OF THE ARSENIC SPECIES ANALYSIS IS CONDUCTED IN AN AUTOMATED SYSTEM. ARSENIC SPECIES ARE FIRST REDUCED TO AS III. NABH4 IS THEN USED TO FORM THE HYDRIDE WHICH IS SPARGED INTO A QUARTZ TUBE ATOMIZER WHERE THE HYDRIDE IS DECOMPOSED TO THE ATOMIC SPECIES. THE ABSORBANCE IS MEASURED SPECTROPHOTOMETRICALLY AT 193.7 NM. REF: AGEMIAN, H. AND THOMSON, R. 1979, '' A SEMIAUTOMATED METHOD FOR THE DETERMINATION OF ARSENIC AND SELENIUM IN FISH TISSUE.'' WQB, BURLINGTON, ONT. REQ'D BY: WQB, BURLINGTON, DEC.1979
1387	FLOUROMETRY. SAMPLE DIGESTED WITH HNO3 AND SELENIUM DETERMINED FLOURIMETRICALLY WITH 2,3-DIAMINONAPTHALENE. REQ'D BY: IJC,PLUARG,TASK'C',AGRICULTURAL WATERSHEDS STUDY.
1389	COLOURIMETRIC WITH DIAMINOBENZIDINE-APHA STD. METHODS P251 REQ'D BY: TECHNICAL SERVICES, MANITOBA ENVIRONMENT, JAN.1976
1398	0.5N HCL EXTRACTION. THE SEDIMENT IS DIGESTED AS IN METHOD 13054. SAMPLE EXTRACTS ARE ANALYZED FOR SELENIUM BY THE AUTOMATED BOROHYDRIDE SYSTEM GIVEN IN METHOD 33050 EXCEPT THAT THE ABSORBANCE IS DETERMINED AT 196 NM. THE DETECTION LIMIT IS 0.01 MG/KG FOR A SAMPLE SIZE OF 5G. REQ'D BY: WQB, MONCTON, N.B., MARCH, 1981. SELENIUM DISSOLVED SE MG/L
1399	FLAMELESS ATOMIC ABSORPTION. THE SAMPLE IS DECANTED OR FILTERED THROUGH A 0.45 UM FILTER PRETREATED BY BOILING WITH 2% K2S2O8 AND HCL AND THEN IN AN AUTOMATED SYSTEM THE COMPONENT IS CONVERTED TO HYDRITE BY REDUCTION WITH A POTASSIUM IODIDE-STANNOUS CHLORIDE MIXTURE. AN ALUMINUM SLURRY IN SULFURIC ACID REDUCES THE SELENITE TO HYDROGEN SELENIDE. THE HYDROGEN SELENIDE IS SEPARATED FROM THE SOLUTION AND PASSED TO A QUARTZ TUBE ATOMIZER WHERE IT IS DECOMPOSED TO ATOMS AND MEASURED SPECTROPHOTOMETRICALLY AT THE APPROPRIATE WAVE LENGTH. SELENIUM: 196.1 NM, ARSENIC: 193.7 NM, ANTIMONY: 217.6 NM. (34010 & 51001): SAMPLE IS AGITATED WHILE PUMPED INTO AUTO-ANALYSER MANIFOLD. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, 1979 REQUIRED CODE FOR METHOD DEVELOPED BY P.D. GOULDEN AND PETER BROOKSBANK AT THE CANADA CENTRE FOR INLAND WATERS,BURLINGTON, ONTARIO, AS DESCRIBED IN ANALYTICAL CHEMISTRY, VOL.46, NO.11, SEPT. 1974,

METHOD CODE	DESCRIPTION
1399	P. 1431-1436.
1406	FLAMELESS AA: BLOOD SAMPLES ARE DIGESTED IN PERCHLORIC AND NITRIC ACIDS. SELENIUM IS REDUCED TO SE IV BY MEANS OF SODIUM BOROHYDRIDE. THE HYDRIDE IS SPARGED INTO A QUARTZ TUBE ATOMIZER WHERE THE HYDRIDE IS DECOMPOSED. THE ABSORBANCE IS MEASURED AT 196 NM. REF: CLINTON, O.E. ANALYST, 102, 187-192 (1977) "DETERMINATION OF SELENIUM IN BLOOD AND PLANT MATERIAL BY HYDRIDE GENERATION AND ATOMIC ABSORPTION SPECTROSCOPY". REQ'D BY: WATER ANALYSIS SECTION, ALBERTA ENVIRONMENTAL CENTRE, MARCH, 1982.
1407	SPECIFIC ION ELECTRODE.
1408	MOST PROBABLE NUMBER PER ML.
1409	MOST PROBABLE NUMBER PER 100 ML.
1410	MEMBRANE FILTER COUNT PER 100 ML.
1411	TOTAL COUNT ON TOTAL COLIFORM PLATE. REQ'D BY: IJC,PLUARG,TASK 'C',AGRICULTURAL WATERSHEDS STUDY.
1412	MEMBRANE FILTER COUNT PER ML. REQ'D BY: WQB WESTERN REGION, APRIL 1977.
1413	HACH PROCEDURE USING COL1 COUNTERS. REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
1414	MULTIPLE TUBE FERMENTATION TECHNIQUE. ORGANISMS/ML. REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
1417	THE MEDIUM USED WAS M-FC AGAR*, WITH ROSOLIC ACID. INCUBATION WAS FOR 20 HR IN A SEALED PLASTIC BAGS IMMERSED IN A WATER BATH EQUIPPED WITH A CIRCULATION DEVICE AND CONTROLLED AY 44.5 C. MEMBRANE FILTRATIONS WERE MADE FOR THREE OR MORE APPROPRIATE VOLUMES OF EACH WATER SAMPLE, AND THE PRESENCE OF TYPICAL BLUE COLONIES WAS INTERPRETED AS EVIDENCE OF THE PRESENCE OF FECAL COLIFORMS. COUNTS WERE MADE FOR THE MOST APPROPRIATE DILUTION, AND WERE RECORDED IN TERMS OF FECAL COLIFORMS PER 100 ML OF WATER. REF:STANDARD METHODS, 14 TH EDITION, METHOD 909C REQ'D BY: EPS ONT. REGION LABORATORY SERVICES, JULY, 1978.
1418	THE MEDIUM USED WAS MF-C BROTH WITH ROSOLIC ACID AND THE MEMBRANE FILTERS WERE MILLIPORE HC. PETRI DISHES WERE ENCUBATED 22-24 HOURS AT 44.5 DEG. COLONIES EXHIBITING A BLUE COLOUR WERE COUNTED USING A STEREOMICROSCOPE (10-20X). COUNTS FOR THE MOST APPROPRIATE DILUTION WERE RECORDED AS FECAL COLIFORM COLONIES PER 100 ML OF SAMPLE. REF: MILLIPORE PUBLICATION - FECAL COLIFORM ANALYSIS-AB313. REQ'D BY: WQB, MONCTON, NOVEMBER 1984.
1421	THE MEDIUM USED WAS K.F. AGAR. MEMBRANE FILTRATIONS WERE MADE FOR APPROPRIATE VOLUMES OF EACH WATER SAMPLE, WITH INCUBATION AT 35 C FOR 48 HR IN A ATMOSPHERE OF SATURATED HUMIDITY. THE DEVELOPMENT OF COLONIES NORMALLY DARK RED TO PINK IN A COLOUR, WAS INTERPRETED AS EVIDENCE OF FECAL STREPTOCOCCI. COUNTS WERE DETERMINED FROM THE MOST APPROPRIATE DILUTION AND RECORDED IN TERMS OF FECAL STREPTOCOCCI PER 100 ML. REF:STANDARD METHODS, 13 TH EDITION, METHOD 409B. REQ'D BY: EPS ONT. REGION LABORATORY SERVICES, JULY, 1978.
1424	PS. AERUGINOSA BY MEMBRANE FILTER. THE PROCEDURE PERMITS THE RESUSCITATION AND ESTIMATION OF A LARGE PROPORTION OF THE ENDEMIC P. AERUGINOSA POPULATION IN A VARIETY OF WATERS. PLATED MEMBRANES ARE INCUBATED AT 41.5 DEG. FOR 3-4 DAYS IN A WELL HUMIDIFED INCUBATOR. REF: METHODS FOR MICROBIOLOGICAL ANALYSIS OF WATERS, WASTEWATERS AND SEDIMENTS, NHRI. REQ'D BY: WQB, BURLINGTON, AUG 1979.
1425	PS. AERUGINOSA MOST PROBABLE NUMBER. REQ'D BY: IJC,PLUARG,TASK 'C', AGRICULTURAL WATERSHED STUDY.
1427	TOTAL NUMBER OF PHYTOPLANKTON CELLS OBSERVED IN SAMPLE.

METHOD CODE	DESCRIPTION
1427	REQ'D BY: GEMS-GLOWDAT, CCIW, SEPT. 1980.
1428	BIOMASS NUMBER DETERMINED FROM COUNTS OF INDIVIDUAL SPECIES TIMES THE VOLUME PER CELL FOR EACH SPECIES CONVERTED TO WEIGHT PER VOLUME OF SAMPLE. REQ'D BY: GEMS-GLOWDAT, CCIW, SEPT. 1980.
1429	THE NUMBER OF INDIVIDUAL PHYTOPLANKTON SPECIES NOTED IN A STANDARD SAMPLE. REQ'D BY: GEMS-GLOWDAT, CCIW, SEPT. 1980.
1430	TOTAL NUMBER OF PHYTOPLANKTON CELLS OBSERVED IN SAMPLE. REQ'D BY: GEMS-GLOWDAT, CCIW, AUGUST 1981.
1431	AGAR PLATE COUNT. IF RESIDUAL CL2 IS PRESENT, THE SAMPLE IS NEUTRALIZED WITH NA2S2O3. THE SAMPLE IS VIGOROUSLY SHAKEN 25 TIMES. THEN AN ALIQUOT IS ADDED TO A PETRI DISH. FRESHLY LIQUEFIED AGAR MEDIUM (TRYPTONE GLUCOSE EXT. OR PLATE COUNT AGAR) AT 43-45 DEG.C. IS POURED IN THE DISH. THE ALIQUOT AND AGAR ARE THOROUGHLY MIXED, THEN SOLIDIFIED, AND INCUBATED 45-51 HR AT THE APPROPRIATE TEMPERATURE. THE COLONIES ARE THEN COUNTED, A COLONY COUNTER IS USED. ALL EQUIPMENT USED IS STERILE. REF.; STD. METHODS FOR THE EXAMN. OF WATER AND WASTEWATER, AMERICAN PUBLIC HEALTH ASSOCN., 13TH EDITION, 1971, P. 660.
1432	REQ'D BY: RIDEAU RIVER STORMWATER MGT STUDY, JAN 1980. STD. PLATE COUNT 35 DEG.C. BACT.DENS. NO/ML
1434	REQ'D BY: RIDEAU RIVER STORMWATER MGT STUDY, JAN 1980. STD. PLATE COUNT BACT.DENS. NO/ML
1437	HETEROTROPHIC BACTERIAL DENSITIES MEASURED USING THE SPREAD PLATE TECHNIQUE. PLATES ARE INCUBATED AEROBICALLY AT 20 DEG FOR 7 DAYS. REF: METHODS FOR MICROBIOLOGICAL ANALYSIS OF WATERS, WASTE-WATERS AND SEDIMENTS, NHRI. REQ'D BY: WQB, BURLINGTON, AUG 1979.
1452	REQ'D BY: WQB, CALGARY, FEBRUARY 1976.
1453	ALL SAMPLES COLLECTED ARE ACIDIFIED TO 0.2N WITH CONCENTRATED HYDROCHLORIC ACID AS A PRESERVATIVE. FOR 90SR DETERMINATION, A 3L ALIQUOT OF EACH SAMPLE IS TAKEN TO WHICH STABLE STRONTIUM CARRIER IS ADDED. SEPARATION OF STRONTIUM FROM CALCIUM IS ACHIEVED BY PRECIPITATION OF CA WITH 67.5% HNO3. INITIAL 90Y PRESENT IN THE SAMPLE IS REMOVED BY CO-PRECIPITATION WITH FET3. AFTER REMOVAL OF YTTRIUM, THE SOLUTION IS ALLOWED TO STAND AT LEAST TWO WEEKS FOR 90Y GROWTH. YTTRIUM CARRIER IS ADDED AND SEPARATED FROM STRONTIUM BY PRECIPITATION OF Y(OH)3. THE SEPARATED STRONTIUM IS ANALYZED BY AAS TO DETERMINE STRONTIUM YIELD. YTTRIUM OXALATE IS PRECIPITATED AND BETA-COUNTED FOR 90Y DETERMINATION. CORRECTION FACTORS FOR 90SR YIELD AND 90Y GROWTH, DECAY AND COUNTING EFFICIENCY ARE APPLIED. REQ'D BY: NWRI BURLINGTON, FEBRUARY 1982.
1457	ATOMIC ABSORPTION WITH SOLVENT EXTN. THE SAMPLE IS DIGESTED WITH HNO3. THE PH OF AN ALIQUOT OF THE SAMPLE IS ADJUSTED TO 1.6, BR2 WATER IS ADDED, AND THE ALIQUOT WARMED UNTIL THE BR2 COLOUR ALMOST VANISHES. A SOLN. OF BENZOIN ALPHA-OXIME IN ETHANOL IS ADDED, THEN THE ALIQUOT IS EXTD. WITH N-BUTYL ACETATE. THE SOLVENT LAYER IS ASPIRATED. THE ABSORBANCE IS MEASURED SPECTROPHOTOMETRICALLY AT 313.5 MU, AND COMPARED WITH THOSE OF IDENTICALLY PREPD. STD. MO7O24 ION SOLNS. AN N2O-C2H2 REDUCING FLAME IS USED. DISSOLVED: IF TURBID, THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER; NO DIGESTION. SUSPENDED: THE FILTER CONTAINING THE RESIDUE IS DIGESTED. EXTRACTABLE: THE SAMPLE IS DILUDE WITH DILUTE MINERAL ACID, SHAKEN AND LEFT OVERNIGHT; NO DIGESTION. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
1477	ATOMIC ABSORPTION WITH SOLVENT EXTRACTION. THE SAMPLE IS ACIDIFIED WITH DILUTE MINERAL ACID, SHAKEN AND LEFT OVERNIGHT. ASCORBIC ACID IS ADDED AND THE PH ADJUSTED TO 2.3. THE ALIQUOT IS EXTRACTED WITH 8-HYDROXYQUINOLINE-M1BK REAGENT AND THE SOLVENT LAYER ASPIRATED. THE ABSORBANCE

ENVIRODAT/NAQUADAT METHOD CODES AND DESCRIPTIONS

METHOD CODE	DESCRIPTION
1477	IS MEASURED AT 313.5 NM AND COMPARED WITH THOSE OF IDENTICALLY PREPARED STANDARD MO7O24 ION SOLUTIONS. A N2O-C2H2 REDUCING FLAME IS USED. REFERENCE: 1. "STANDARD METHODS TO TEST FOR MOLYBDENUM IN WATER" ASTM, DESIGNATION: D3272-75. ASTM 1975, P. 355. REFERENCE: 2. CHAU, Y.K., AND LUM-SHUE-CHAN, K., "ATOMIC ABSORPTION DETERMINATION OF MICROGRAM QUANTITIES OF MOLYBDENUM IN LAKE WATER , ANALYTICAL CHIMICA ACTA. ACACA, VOL. 48, 1969, P.205. REQ'D BY: POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT, MARCH 1977.
1481	ATOMIC ABSORPTION BY DIRECT ASPIRATION. THE SAMPLE, PRESERVED WITH EDTA (DISODIUM DIHYDROGEN ETHYLENEDIAMINETETRAACETATE), IS DIGESTED WITH HNO3. THIS SOLN. IS ASPIRATED. THE ABSORBANCE MEASURED SPECTROPHOTOMETRICALLY AT 328.1 MU, AND COMPARED WITH THOSE OF STD. AG SOLNS. AN ACETYLENE-AIR OXIDIZING FLAME IS USED. DISSOLVED: IF TURBID, THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER; NO DIGESTION. SUSPENDED: THE FILTER CONTAINING THE RESIDUE IS DIGESTED. EXTRACTABLE: THE SAMPLE IS ACIDIFIED WITH HNO3, SHAKEN AND LEFT OVERNIGHT. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
1482	ATOMIC ABSORPTION WITH SOLVENT EXTN. THE SAMPLE, PRESERVED WITH EDTA, IS DIGESTED WITH HNO3. THE PH OF AN ALIQUOT OF THIS SOLN. IS ADJUSTED TO 3.5-6.5. THE ALIQUOT IS EXTD. WITH ETHYL PROPIONATE CONTG. DIPHENYLTHIOCARBAZONE. THE SOLVENT LAYER IS HOMOGENIZED WITH ACETONE, THEN ASPIRATED. THE ABSORBANCE IS MEASURED SPECTROPHOTOMETRICALLY AT 328.1 MU, AND COMPARED WITH THOSE OF IDENTICALLY PREPD. STD. AG SOLNS. AN ACETYLENE-AIR OXIDIZING FLAME IS USED. DISSOLVED: IF TURBID, THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER; NO DIGESTION. SUSPENDED: THE FILTER CONTAINING THE RESIDUE IS DIGESTED. EXTRACTABLE: THE SAMPLE IS ACIDIFIED WITH HNO3, SHAKEN AND LEFT OVERNIGHT. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH,
1483	ATOMIC ABSORPTION WITH SOLVENT EXTRACTION. THE SAMPLE PRESERVED WITH EDTA IS DIGESTED WITH HNO3. THE PH OF AN ALIQUOT OF THIS SOLUTION IS AD JUSTED TO 3.5. AMMONIUM PYRROLIDINE DITHIOCARBAMATE SOLUTION IS ADDED, THE ALIQUOT EXTRACTED WITH METHYL ISOBUTYL KETONE, AND THE SOLVENT LAYER ASPIRATED. THE ABSORBANCE IS MEASURED SPECTROPHOTOMETRICALLY AT 328.1 NM AND COMPARED WITH THOSE OF IDENTICALLY PREPARED STANDARD AG SOLUTIONS. AN ACETYLENE-AIR OXIDIZING FLAME IS USED. DISSOLVED: IF TURBID, THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER; NO DIGESTION. SUSPENDED: THE FILTER CONTAINING THE RESIDUE IS DIGESTED REQ'D BY: WQB, BURLINGTON, MAY 1980.
1494	ATOMIC ABSORPTION WITH SOLVENT EXTRACTION. SAMPLE IS PRESERVED WITH HNO3 AND ANALYSED AS SOON AS POSSIBLE AFTER COLLECTION. SAMPLE ALIQUOT ADJUSTED TO PH 6.0 AND EXTRACTED WITH DITHIZONE-ETHYL PROPIONATE. THE SOLVENT LAYER IS ASPIRATED INTO AN C2H2-AIR OXIDIZING FLAME. MEASURED AT 328.1 MU. REF: METHODS MANUAL, POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT, EDMONTON, 1978. NOTE: CODE REQUESTED BY POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT, SEP., 1978.
1500	SAME AS PARAMETER 48001 BUT WITH A PRECONCENTRATION DETECTION LIMIT OF 1.0 UG/L. REQ'D BY: IJC,PLUARG,TASK 'C',AGRICULTURAL WATERSHEDS STUDY. CADMIUM TOTAL CD MG/L
1502	INDUCTIVELY COUPLED ARGON PLASMA (ICAP) EMISSION SPECTROMETRY. SAMPLES PRESERVED WITH HNO3, DIGESTED WITH CONC HNO3 OR AQUA REGIA, CONCENTRATED, AND ASPIRATED FROM AN AUTOSAMPLER. EMISSION ARE COMPARED TO STD. DISSOLVED:THE SAMPLE IS FILTERED THROUGH A 0.45 U MEMBRANE FILTER. EXTRACTABLE: SAMPLES ARE CONCENTRATED 5 TO 10 TIMES, AND ASPIRATED. LEAD : 220.3 MU. VANADIUM: 292.4 MU. CADMIUM: 228.8 MU. BERYLLIUM: 313.0 MU.

ENVIRODAT/NAQUADAT METHOD CODES AND DESCRIPTIONS

METHOD CODE DESCRIPTION

1502 BORON : 249.68 MU. MAGNESIUM: 279.5 MU.
SODIUM : 589.0 MU. ALUMINIUM: 309.3 MU.
SILICON: 288.1 MU. POTASSIUM: 766.5 MU.
CALCIUM: 317.9 MU. TITANIUM: 334.9 MU.
IRON : 259.9 MU. CHROMIUM: 267.7 MU.
COBALT : 228.6 MU. MANGANESE: 257.6 MU.
NICKEL : 231.6 MU. MOLYBDENUM: 202.0 MU.
COPPER : 324.7 MU. STRONTIUM: 421.5 MU.
BARIUM : 493.3 MU. TIN: 189.9 MU.
ZINC : 213.8 MU.
REF: METHODS MANUAL, ALBERTA ENVIRONMENT, AUGUST 1981.
REQ'D BY: ALBERTA ENVIRONMENTAL CENTRE, OCT. 1981.

1503 BY INDUCTIVELY COUPLED ARGON PLASMA EMISSION SPECTROSCOPY (ICAP). THE SAMPLE IS PRESERVED IN THE FIELD WITH DILUTE MINERAL ACID. A SAMPLE ALIQUOT IS DIGESTED WITH AQUA REGIA AND EVAPORATED TO NEAR DRYNESS. THE RESIDUE IS DISSOLVED IN CONC. HCL AND DILUTED TO ONE-FIFTH OF THE ALIQUOT VOLUME. THE DIGESTED SAMPLE IS FILTERED THROUGH A 0.4 U MEMBRANE FILTER AND ASPIRATED. THE EMISSION IS MEASURED SPECTROPHOTOMETRICALLY AND COMPARED WITH THAT OF AN IDENTICALLY PREPARED STANDARD CD SOLUTION.
CADMIUM: 228.8 MU. TITANIUM: 334.9 MU.
IRON : 259.9 MU. VANADIUM: 292.4 MU.
COBALT : 228.6 MU. CHROMIUM: 267.7 MU.
COPPER : 324.7 MU. MOLYBDENUM: 202.0 MU.
ZINC : 213.8 MU. MANGANESE: 257.6 MU.
TIN : 189.9 MU. STRONTIUM: 421.4 MU.
REF: METHODS MANUAL, POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT, EDMONTON, JULY, 1979.
REQ'D BY: POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT JULY, 1979.

1508 ATOMIC ABSORPTION BY DIRECT ASPIRATION. SAMPLE IS FREEZE-DRIED OR AIR-DRIED AND GROUND TO A FINE POWDER. A REPRESENTATIVE SAMPLE AND A MIXTURE OF AQUA REGIA AND HF ARE PLACED IN A PARR 4745 ACID DIGESTION BOMB. THE BOMB IS SEALED AND HEATED FOR 2 HOURS AT 135 C TO DECOMPOSE THE SAMPLE. THE SAMPLE IS THEN MECHANICALLY SHAKEN IN A SOLUTION OF H3BO3 AND DEIONISED WATER UNTIL ALL MATERIAL DISSOLVES. THE ABSORBANCE IS MEASURED SPECTROPHOTOMETRICALLY AT THE APPROPRIATE WAVE LENGTH AND COMPARED WITH THOSE OF IDENTICALLY PREPARED STANDARDS.
ZINCC : 228.8 MU. MANGANESE: 279.5 MU.
COBALT: 240.7 MU. CHROMIUM: 279.8 MU.
IRON : 248.4 MU. COPPER: 324.7 MU.
LEAD : 283.3 MU. CADMIUM: 228.8 MU.
NICKEL: 232.0 MU.
REFERENCE: S. WARDLE AND G. PULLISHY, ALBERTA POLLUTION CONTROL LABORATORY, EDMONTON, 1976.
REQ'D BY: POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT,MARCH 1977

1516 BY INDUCTIVELY COUPLED ARGON PLASMA EMISSION SPECTROSCOPY (ICAP). THE SAMPLE IS FILTERED IN THE FIELD THROUGH A 0.45 U MEMBRANE FILTER AND PRESERVED WITH DILUTE MINERAL ACID. THE SAMPLE IS ASPIRATED AND THE EMISSION IS MEASURED AT THE APPROPRIATE WAVE LENGTH AND COMPARED WITH THAT OF IDENTICALLY PREPARED STANDARD SOLUTIONS.
CADMIUM: 228.8 MU. BYRELLIUM: 313.0 MU.
BORON : 249.7 MU. SODIUM: 589.0 MU.
SILICON: 288.1 MU. MAGNESIUM: 279.5 MU.
CALCIUM: 317.9 MU. ALUMINIUM: 309.3 MU.
COBALT : 228.6 MU. POTASSIUM: 766.5 MU.
IRON : 259.9 MU. TITANIUM: 334.9 MU.
NICKEL : 231.6 MU. VANADIUM: 292.4 MU.
COPPER : 324.7 MU. MANGANESE: 257.6 MU.
ZINC : 213.8 MU. CHROMIUM: 267.7 MU.
BARIUM : 493.4 MU. MOLYBDENUM: 202.0 MU.
LEAD : 220.3 MU. STRONTIUM: 421.5 MU.
TIN : 189.9 MU.
REF: METHODS MANUAL, POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT, EDMONTON, JULY, 1979.
REQ'D BY: POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT JULY, 1979

1518 ATOMIC ABSORPTION WITH SOLVENT EXTN. THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. THE FILTER, CONTG. THE RESIDUE, IS DIGESTED WITH HNO3. THE PH OF AN ALIQUOT OF THIS SOLN. IS ADJUSTED TO 4.75 WITH BUFFER SOLN. AMMONIUM PYRROL-

ENVIRODAT/NAQUADAT METHOD CODES AND DESCRIPTIONS

METHOD CODE	DESCRIPTION
1518	IDINE DITHIOCARBAMATE SOLN. IS ADDED. THE ALIQUOT IS EXTD. WITH METHYL ISOBUTYL KETONE AND THE SOLVENT LAYER ASPIRATED. THE ABSORBANCE IS MEASURED SPECTROPHOTOMETRICALLY AT 228.8 MU, AND COMPARED WITH THOSE OF IDENTICALLY PREPD. STD. CD SOLNS. AN ACETYLENE-AIR OXIDIZING FLAME IS USED. THE DETECTION LIMIT IS 1 UG/L. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974. CADMIUM SUSPENDED CD UG/L
1519	BY INDUCTIVELY COUPLED ARGON PLASMA EMISSION SPECTROSCOPY (ICAP). AN ALIQUOT OF SAMPLE IS FILTERED IN THE FIELD TROUGH A 0.45 U MEMBRANE FILTER. THE FILTER CONTAINING THE RESIDUE IS DIGESTED WITH AQUA REGIA AND EVAPORATED TO NEAR DRYNESS. THE RESIDUE IS DISSOLVED IN CONC. HCL AND DILUTED TO ONE. FIFTH OF THE ALIQUOT VOLUME. THE DIGESTED SAMPLE IS FILTERED THROUGH A 0.4 U MEMBRANE FILTER AND ASPIRATED. THE EMISSION IS MEASURED SPECTROPHOTOMETRICALLY AT THE APPROPRIATE WAVE LENGTH AND COMPARED WITH THAT OF IDENTICALLY PREPARED METAL SOLUTION. COPPER : 324.7 MU. MOLYBDENUM: 202.0 MU. NICKEL : 231.6 MU. STRONTIUM: 421.5 MU. ZINC : 213.8 MU. TITANIUM: 334.9 MU. LEAD : 220.3 MU. VANADIUM: 292.4 MU. TIN : 189.9 MU. MANGANESE: 257.6 MU. CADMIUM : 228.8 MU. CHROMIUM: 267.7 MU. COBALT : 228.6 MU. IRON: 259.9 MU. REF: METHODS MANUAL, POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT, EDMONTON, JULY, 1979. REQ'D BY: POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT, JULY, 1979.
1520	INDUCTIVELY COUPLED ARGON (ICAP). EMISSION SPECTOMETRY BY DIRECT ASPIRATION USING A LOW FLOW GAS TORCH. AN ACIDIFIED PORTION OF THE SAMPLE IS DIRECTLY ASPIRATED FROM AN AUTO-SAMPLER, INTO A HIGH TEMPERATURE ARGON PLASMA. WAVELENGTH IS 228.8 NM. REQ'D BY: ALBERTA ENVIRONMENTAL CENTRE LABORATORY VEGREVILLE, ALBERTA, FEBRUARY 1989. - FOR COPPER_TOTAL, THE WAVELENGTH IS 324.7 NM. - FOR ZINC_TOTAL, THE WAVELENGTH IS 213.8 NM. - FOR LEAD_TOTAL, THE WAVELENGTH IS 220.3 NM. - FOR COBALT_TOTAL, THE WAVELENGTH IS 228.6 NM. - FOR NICKEL_TOTAL, THE WAVELENGTH IS 231.6 NM. - FOR MANGANESE_TOTAL, THE WAVELENGTH IS 257.6 NM. - FOR CHROMIUM_TOTAL, THE WAVELENGTH IS 267.7 NM. - FOR BERYLLIUM_TOTAL, THE WAVELENGTH IS 313.0 NM. - FOR VANADIUM_TOTAL, THE WAVELENGTH IS 292.4 NM. - FOR MOLYBDENUM_TOTAL, THE WAVELENGTH IS 202.0 NM. - FOR BARIUM_TOTAL, THE WAVELENGTH IS 493.4 NM. - FOR IRON_TOTAL, THE WAVELENGTH IS 259.9 NM. - FOR ALUMINUM_TOTAL, THE WAVELENGTH IS 309.2 NM.
1526	INDUCTIVELY COUPLED ARGON PLASMA EMISSION SPECTROSCOPY (ICAP) SAMPLES PRESERVED WITH 2 ML CONC HNO3 PER LITER. (NO PRECONCENTRATION OF SAMPLE IS CARRIED OUT). THE EMISSION IS MEASURED SPECTROPHOTOMETRICALLY AT THE APPROPRIATE WAVE LENGTH AND COMPARED WITH STANDARD CD SOLUTIONS. LITHIUM: 670.78 MU, SODIUM: 589.59 MU, CADMIUM: 226.50 MU, MAGNESIUM: 279.55 MU, ALUMINIUM: 308.22 MU, POTASSIUM: 766.49 MU, CALCIUM: 317.93 MU, VANADIUM: 292.4 MU, CHROMIUM: 267.72 MU, MANGANESE: 257.61 MU, IRON: 259.94 MU, COBALT: 228.62 MU, NICKEL: 231.6 MU, COPPER: 324.75 MU, ZINC: 213.86 MU, STRONTIUM: 407.77 MU, MOLYBDENUM: 202.03 MU, BARIUM: 455.4 MU, LEAD: 220.05 MU, BORON: 249.68 MU. REQ"D BY: NWQL, BURLINGTON NOV 1987
1529	THE FISH TISSUE IS DIGESTED WITH A MIXTURE OF HNO3 AND H2SO4 IN TEST TUBES PLACED IN AN ALUMINUM HOT BLOCK. THE SAMPLE IS CHARRED IN H2SO4 AFTER THE COMPLETE EVOLUTION OF HNO3. H2O2 IS USED TO PRODUCE A CLEAR SOLUTION. THE METAL IS CONCENTRATED BY CHELATION-SOLVENT EXTRACTION USING APDC-MIBK AND DETERMINED BY ATOMIC ABSORPTION SPECTROPHOTOMETRY. THE ABSORBANCE IS MEASURED. CADMIUM : 228.8 MU. ALUMINIUM: 309.3 MU. MANGANESE: 257.6 MU. IRON: 259.9 MU. NICKEL : 232 MU. COPPER: 324.7 MU. CHROMIUM : DIRECT FLAME ATOMIC ABSORPTION AT 279.8 MU. ZINC : DIRECT FLAME ATOMIC ABSORPTION AT 213.9 MU.

METHOD CODE	DESCRIPTION
1529	REF: AGEMIAN, HAIG, STURTEVANT, D.P., AND AUSTEN, K.D., 1979, ''SIMULTANEOUS ACID EXTRACTION OF SIX TRACE METALS FROM FISH TISSUE BY HOT BLOCK DIGESTION AND DETERMINATION BY ATOMIC ABSORPTION SPECTROMETRY'', ANALYST IN PRESS REQ'D BY: WQB, OTTAWA, NOV. 1979.
1530	INDUCTIVELY COUPLED ARGON PLASMA (ICAP) EMISSION SPECTROMETRY. THE FISH TISSUE IS DIGESTED WITH NITRIC AND HYDROCHLORIC ACID (AQUA REGIA) IN A BLOCK DIGESTOR. A 10% HYDROCHLORIC ACID SOLUTION OF THE DIGEST IS ASPIRATED FROM AN AUTOSAMPLER. EMISSION IS MEASURED AT THE APPROPRIATE WAVE LENGTH FOR THE METAL AND COMPARED TO STANDARDS. CADMIUM: 228.8 MU. CHROMIUM: 283.3 MU. LEAD : 220.3 MU. REF: METHODS MANUAL, ALBERTA ENVIRONMENT, AUGUST 1981. RED'BY: ALBERTA ENVIRONMENTAL CENTRE, SEPTEMBER 1982.
1532	ATOMIC ABSORPTION SPECTROPHOTOMETER USING A GRAPHITE FURNACE PLASTIC SAMPLE CONTAINER AND 2 ML. OF C.HNO3 PRESERVATIVE PER LITER OF SAMPLE REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
1544	SEMI-AUTOMATED FLAMELESS ATOMIC ABSORPTION. SAMPLES ARE MANUALLY DIGESTED WITH H2SO4 AND HNO3 FOLLOWED BY AUTOMATED NABH4 REDUCTION AND MEASUREMENT AT 217.6 MU. REF: METHODS MANUAL, POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT, EDMONTON, 1978. NOTE: CODE REQUESTED BY POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT, SEP., 1978.
1550	ATOMIC ABSORPTION WITH SOLVENT EXTN. THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. THE FILTER, CONTG. THE RESIDUE, IS DIGESTED WITH HNO3. THIS SOLN. IS ASPIRATED. THE ABSORBANCE IS MEASURED SPECTROPHOTOMETRICALLY AT 217.6 MU, AND COMPARED WITH THOSE OF STD. SBO+ ION SOLNS. AN ACETYLENE-AIR OXIDIZING FLAME IS USED. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
1554	NITRIC ACID - PERCHLORIC ACID DIGESTION, PLUS 5X PRECONCENTRATION AT SAME TIME. ANALYSIS READ ON A INDUCTIVLY COUPLED PLASMA SPEC. REQ"D BY SASK ENVIRONMENT. METHODOLOGY FROM SRC AUG 1982
1556	METHOD REQ'D BY WQB, OTTAWA, OCT. 1979. TOTAL ALGAL GROWTH POTENTIAL CELLS/ML
1557	SELENASTRUM CAPRICORNUTUM, SAMPLES ARE AUTOCLAVED AT 1.1KG CM2 AT 121 C FOR 15 MINUTES FOLLOWED BY BUBBLING WITH CO2 FOR 10 MINUTES. THREE REPLICATE 60 ML ALIQUOTS ARE PORTIONED INTO STERILE 250 ML ERLENMEYER FLASKS, THEN INOCULATED AT 1000 CELLS/ML WITH WASHED SELENASTRUM CAPRICORNUTUM. SAMPLES ARE SHAKER INCUBATED AT 24 C AND 4304 LUX. CELL DENSITY IS MONITORED VIA IN VIVO CHLOROPHYLL FLUORESCENCE UNTIL GROWTH CEASES, FINAL STANDING IS DETERMINED BY DIREC T CELL COUNT USING A COULTER ZB1 PARTICLE COUNTER. ALGAL GROWTH POTENTIAL REPRESENTS MEAN STANDING CROP OF THE REPLICATES. REF: MILLER, W.E., J.C. GREENE & T. SHIROYAMA, 1978. THE SELENASTRUM CAPRICORNUTUM PRINTZ ALGAL ASSAY BOTTLE TEST. EPA-600/9-78-018. REQ'D BY: ALBERTA ENVIRONMENT, DEC. 1980.
1558	ANABAENA FLOS-AQUAE, SAMPLES ARE AUTOCLAVED AT 1.1 KG CM2 AT 121 C FOR 15 MINUTES FOLLOWED BY BUBBLING WITH CO2 FOR 10 MINUTES. THREE REPLICATE 60 ML ALIQUOTS ARE PORTIONED INTO STERILE 250 ML ERLENMEYER FLASKS, THEN INOCULATED AT A LOW LEVEL WITH WASHED ANABAENA-FLOS-AQUAE. SAMPLES ARE SHAKER INCUBATED AT 24 C AND 2152 LUX. GROWTH IS MONITORED VIA ACETONE EXTRACTED CHLOROPHYLL FLUORESCENCE WITH ALGAL GROWTH POTENTIAL CALCULATED FROM THE AVERAGE TOTAL MAXIMUM STANDING CROP ACHIEVED. FILTERED: SAMPLE ARE FILTERED THROUGH A 0.45 U MEMBRANE FILTER USING STERILE APPARATUS. THE FILTRATE IS PROPORTIONNED INTO THREE REPLICATES REF: EPA, NATIONAL EUTROPHICATION RESEARCH PROGRAM, 1971 ALGAL ASSAY PROCEDURE: BOTTLE TEST. U.S.E.P.A. 82 PP. REQ'D BY: ALBERTA, ENVIRONMENT, DEC. 1980

METHOD CODE	DESCRIPTION
1559	SELENASTRUM CAPRICORNUTUM, SAMPLES ARE FILTERED THROUGH A 0.45 UM MEMBRANE FILTER USING STERILE APPARATUS. THE FILTRATE IS PORTIONED INTO THREE REPLICATE STERILE 250 ML ERLENMEYER FLASKS (60 ML/FLASK), THEN INOCULATED WITH WASHED SELENASTRUM CAPRICORNUTUM (1000 CELLS/ML). SAMPLES ARE SHAKER INCUBATED AT 24 C AND 4304 LUX. CELL DENSITY IS MONITORED VIA IN VIVO CHLOROPHYLL FLUORESCENCE UNTIL GROWTH CEACES, FINAL STANDING CROP IS DETERMINED BY DIRECT CELL COUNT USING A COULTER ZBI PARTICLE COUNTER. ALGAL GROWTH POTENTIAL REPRESENTS MEAN STANDING CROP OF THE REPLICATES. BIOLOGICALLY AVAILABLE PHOSPHOROUS: MEANS STANDING CROP CONVERTED TO DISS. BIO AVAIL P VIA THE RELATIONSHIP 1 UG/L P = 20,500 CELLS/ML. REF: MILLER, W.E., J.C. GREENE, AND T. SHIROYAMA, 1978 THE SELENASTRUM CAPRICORNUTUM PRINTZ ALGAL ASSAY BOTTLE TEST. EPA-600/9-78-018. REQ'D BY: ALBERTA ENVIRONMENT, DEC. 1980.
1561	ALGAL COUNT IN BILLIONS. VALUE IS X10 TO THE POWER 9. DUPLICATE 4 CM2 ROCK SCRAPES. PRESERVED WITH LUGOL'S IODINE, ENUMERATED AT 40X AND 100X USING INVERTED MICROSCOPE AND SEDIMENTATION TECHNIQUE. CONTINUOUS TRANSECTS 500 TO 2000 CELLS COUNTED. REF: CHARLTON, S.E.D., 1982, LIMNOL. AND ALGOL. OF FIVE BROWN WATER STREAMS IN ALBERTA, PH.D. THESIS, U.A.,EDMONTON. REQ'D BY: ALBERTA WQB, ALBERTA ENVIRONMENT, JULY,1982.
1565	AN ESTIMATE OF BIOMASS IS DERIVED BY SCRAPING ALL THE CLADOPHORA FROM A 0.25M2 GRID. REQ'D BY: WATER PLANNING AND MGT, ONTARIO, JULY 1984.
1566	SAMPLES ARE INCUBATED WITH A KNOWN AMOUNT OF NA HL4CO3 AND FIXED FORMALIN TO A FINAL SOLUTION STRENGTH OF 5% BY VOLUME. THE PH IS LOWERED TO 3.0 - 3.5 BY THE ADDITION OF 1.0 ML OF 1 N HCL, AND A STREAM OF AIR AT 15 PS1. IS INTRODUCED INTO THE INCUBATION VESSELS THROUGH A DISPOSABLE PASTEUR PIPET. SAMPLES ARE BUBBLED FOR 45 MINUTES AND A 5.0 ML SUBSAMPLE IS TAKEN FROM LIQUID SCINTILLATION COUNTING (GEL PHASE). EPILITHON: ROCK INCUBATED, AREA PER ROCK DETERMINED PLANIMETRICALLY. REF:SCHINDLER, D.W., R.V. SCHMIDT, AND R. REID, 1972. J. FISH. RES. BD. CANADA 29:1627-1631. REQ'D BY: ALBERTA ENVIRONMENT, DEC. 1980
1569	PARTICULATES ARE COLLECTED ON A 0.45 UM MEMBRANE FILTER, SUSPENDED IN 30 ML DISTILLED H2O IN A 250 ML ERLENMEYER FLASK, THEN AUTOCLAVED AT 1.1 KG CM2 AT 121 C FOR 15 MINUTES. AFTER COOLING, EACH OF THE THREE REPLICATE FLASKS IS DILUTED WITH 30 ML PHOSPHORUS-FREE DOUBLE CONCENTRATED U.S.E.P.A. MEDIA, AND INNOCULATED AT 1000 CELLS/ML WITH WASHED SELENASTRUM CAPRICORNUTUM. SAMPLES ARE SHAKER INCUBATED AT 24 C AND 4303 LUX. CELL DENSITY IS MONITORED VIA IN VIVO CHLOROPHYLL FLUORESCENCE UNTIL GROWTH CEASES, FINAL STANDING CROP IS DETERMINED BY DIRECT CELL COUNT USING A COULTER ZBI PARTICLE COUNTER. MEAN STANDING CROP IS CONVERTED TO PARTICULATE BIOLOGICALLY AVAILABLE PHOSPHORUS VIA THE RELATIONSHIP 1 UG/L P WILL YIELD A STANDING CROP OF 20,500 CELLS/ML. REF: MILLER, W.E., J.C. GREENE, AND T. SHIROYAMA, 1978. THE SELENASTRUM CAPRICORNUTUM PRINTZ ALGAL ASSAY BOTTLE TEST. EPA-600/9-78-018. REQ'D BY: ALBERTA ENVIRONMENT, DEC. 1980.
1570	TOTAL BIOLOGICALLY AVAILABLE PHOSPHORUS IS GIVEN AS THE SUM OF DISSOLVED BAP AND PARTICULATE BAP. REQ'D BY: ALBERTA ENVIRONMENT, FEB. 1981.
1571	METHOD REQ'D BY WQB, OTTAWA, OCT. 1979. CESIUM RADIATION CS-137 BQ/L
1572	ALL SAMPLES COLLECTED ARE ACIDIFIED TO 0.2N WITH CONCENTRATED HYDROCHLORIC ACID AS A PRESERVATIVE. FOR THE DETERMINATION OF 137CS GAMMA EMITTING RADIONUCLIDES, 45 LITRES OF WATER SAMPLE ARE EVAPORATED WITHOUT BOILING TO A FINAL VOLUME OF 40 ML. WHEN THE VOLUME IS REDUCED TO 200 TO 300ML CONCENTRATED NITRIC ACID IS ADDED IN SMALL INCREMENTS TO EACH SAMPLE UNTIL ALL THE ORGANIC MATTER IS DESTROYED.

METHOD CODE	DESCRIPTION
1572	THESE SAMPLES ARE COUNTED WITH LIQUID-NITROGEN-COOLED, HYPERPURE GERMANIUM DETECTORS, INTERFACED TO A NUCLEAR DATA 6620 NUCLEAR SPECTROMETER. THE SAMPLES ARE COUNTED FOR 2.5 X 105 SECONDS AND THE SPECTRA ACCUMULATED OVER 2048 CHANNELS AT ONE KEV PER CHANNEL. THE DETECTORS ARE STANDARDIZED BY COUNTING STANDARD SOLUTIONS OF RADIONUCLIDE S USING THE SAME GEOMETRY. REQ'D BY: NWRI, BURLINGTON, FEBRUARY 1982.
1573	CODE REQ"D BY SASK. ENVIRONMENT, JUNE 1980 CESIUM RADIATION FISH CS-137 BG/KG
1574	ALL SAMPLES COLLECTED ARE ACIDIFIED TO 0.2N WITH CONCENTRATED HYDROCHLORIC ACID AS A PRESERVATIVE. FOR THE ANALYSIS OF 137CS, HOMOGENIZED AND FREEZE-DRIED FISH SAMPLES ARE PACKED INTO PLASTIC VIALS. THESE ARE THEN GAMMA-COUNTED ON THE LIQUID-NITROGEN-COOLED, HYPERPURE GERMANIUM DETECTORS FOR 24 HOURS. COUNTING EFFICIENCIES AT VARIOUS SAMPLE HEIGHTS ARE OBTAINED BY ADDING STANDARD 137CS SOLUTION TO DRIED MATERIAL AND COUNTING IN THE SAME GEOMETRY. 137CS CONCENTRATIONS ARE CONVERTED TO A WHOLE FRESH FISH BASIS. REQ'D BY: NWRI, BURLINGTON, FEBRUARY 1982
1575	ATOMIC ABSORPTION BY DIRECT ASPIRATION. THE SAMPLE IS DIGESTED WITH HNO3. NACL SOLN. IS ADDED TO THIS SOLN., WHICH IS THEN ASPIRATED. THE ABSORBANCE IS MEASURED SPECTROPHOTOMETRICALLY AT 553.6 MU, AND COMPARED WITH THOSE OF STD. BA SOLNS., CONTG. NACL. A N2O-C2H2 REDUCING FLAME IS USED. SUSPENDED: THE FILTER CONTAINING THE RESIDUE IS DIGESTED. EXTRACTABLE: THE SAMPLE IS ACIDIFIED WITH DILUTE MINERAL ACID, SHAKEN AND LEFT OVERNIGHT; NO DIGESTION. DISSOLVED: IF TURBID, THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER; NO DIGESTION. (56003): AQUA REGIA DIGESTION (56002 & 56102 & 56202): FLAME EMISSION. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
1581	ATOMIC ABSORPTION BY DIRECT ASPIRATION. THE SAMPLE IS DIGESTED WITH HNO3 AND H2O2 TO NEAR DRYNESS. HCL IS ADDED AND DIGESTION REPEATED. FIXED QUANTITY OF HCL IS ADDED, THEN BROUGHT BACK TO ORIGINAL VOLUME WITH DEMIN. H2O, KCL SOLUTION IS ADDED AND SAMPLE IS ASPIRATED INTO A N2O -C2H2 REDUCING FLAME. ABSORBANCE IS MEASURED AT 553.6 AM. SAMPLES ARE COMPARED TO STANDCRDS CONTAINING SAME REAGENT MATRIX. REQ'D BY: WQB, CALGARY, APRIL 1980.
1586	ICAP METHOD IDENTICAL TO PARAMETER 48111 BUT MEASURED AT 493.4 MU. THE DETECTION LIMIT IS 1 UG/L. REQ'D BY: ALBERTA ENVIRONMENTAL CENTRE, ALBERTA ENVIRONMENT, DECEMBER, 1979. BARIUM SUSPENDED BA MG/L
1590	METHOD IDENTICAL TO 56301 WITH FLAME EMISSION USED INSTEAD OF AT. ABSORPTION. THE DETECTION LIMIT IS 0.02 MG/L. NOTE: CODE NO. REQUESTED BY WQB, VANCOUVER, MAY 1974. BARIUM EXTRBLE. BA MG/L
1594	FLAMELESS AT. ABSORPTION ON AN AUTOANALYZER. AN ALIQUOT OF THE SHAKEN SAMPLE IS MIXED WITH KMNO4, K2S2O8 SOLN. AND CONCD. H2SO4 AND THEN DIGESTED AT 105 DEG.C. THIS SOLN. IS MIXED WITH A SOLN OF HYDROXYLAMINE SULPHATE ((NH2OH)2.H2SO4) AND NACL, THEN A SNSO4 SOLN THE MIXTURE IS SPARGED WITH AIR, THE LIQ. REMOVED BY A GAS SEPARATOR AND THE AIR FLOW CONTG. THE HG VAPOUR IS PASSED THROUGH AN ABSORPTION CELL. THE ABSORBANCE IS MEASURED SPECTROPHOTOMETRICALLY AT 253.7 MU AND COMPARED WITH THOSE OF IDENTICALLY PREPD. STD HG SOLNS. SUSPENDED: THE FILTER CONTAINING THE RESIDUE IS DIGESTED. DISSOLVED: IF TURBID, THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. EXTRACTABLE: THE SAMPLE IS ACIDIFIED WITH CONCD. H2SO4, SHAKEN AND LEFT OVERNIGHT; NO DIGESTION. (80015): KMNO4, HYDROXYLAMINE AND NACL REAGENTS OMITTED. (80313): PRESERVATIVE IS 1% NITRIC ACID PLUS 0.05% WEIGHT PER VOLUME. (80314): PRESERVATIVE IS 1% V/V SULFURIC ACID PLUS 0.05% WEIGHT PER VOLUME POTASSIUM DICHROMATE. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH,

METHOD CODE	DESCRIPTION
1594	ENVIRONMENT CANADA, OTTAWA, 1974.
1595	FLAMELESS AT. ABSORPTION. THE SHAKEN SAMPLE PERSERVED WITH H2SO4 IS MANUALLY DIGESTED WITH ACIDIC KMNO4 FOLLOWED BY REDN. WITH SNCL2 AND DETN. BY FLAMELESS AT. ABSORPTION. (80014): PRECONCENTRATION. REF: HATCH AND OTT, ANAL. CHEM., DEC. 1968. NOTE: PARAMETER CODE REQUESTED BY DEPT. OF FISHERIES AND ENVIRONMENT, ENVIRONMENTAL SERVICES, FREDERICTON, NEW BRUNSWICK, NOV. 1973.
1599	SEMI-AUTOMATED FLAMELESS ATOMIC ABSORPTION METHOD. A REPRESENTATIVE ALIQUOT OF THE HOMOGENIZED WET SEDIMENT IS DIGESTED WITH H2SO4,HNO3 AND HCL FOR 2HRS AT 60DEG C. IT IS SUBSEQUENTLY OXIDISED WITH KMNO4 AND K2S2O8,AND SOLUTION IS CLEARED WITH HYDROXYLAMMONIUM SULPHATE-SODIUM CHLORIDE. AN ALIQUOT OF THE SUPERNATANT OF THE CENTRIFUGED SAMPLE IS ANALYSED FOR HG BY MEASURING THE ABSORBANCE AT 253.7 MU IN A COMPLETELY AUTOMATED STANNOUS REDUCTION-COLD VAPOUR A.A.S. SYSTEM. REF: AGEMIAN,H. AND A.S.Y. CHAU.1975."AN IMPROVED METHOD FOR THE EXTRACTION OF MERCURY FROM ENVIRONMENTAL SAMPLES" ANALYST 101:91. REQ'D BY: WATER QUALITY BRANCH,FEBRUARY 1976. ****** APPROVED WATER QUALITY BRANCH METHOD ******
1600	FLAMELESS ATOMIC ABSORPTION ON AN AUTO-ANALYSER. SAMPLE IS FREEZE-DRIED AND GROUND TO 120 MESH. A REPRESENTATIVE PORTION IS DIGESTED WITH H2SO4, HNO3, AND HCL AND OXIDIZED WITH KMNO4 AND K2S2O8 AND CENTRIFUGED. MERCURY COMPOUNDS ARE REDUCED TO ELEMENTAL MERCURY WHICH IS DETERMINED BY COLD VAPOUR ATOMIC ABSORPTION. ABSORPTION IS MEASURED AT 253.7 MU. REF: METHODS MANUAL POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT, EDMONTON, 1978. NOTE: CODE REQUESTED BY POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT, SEP., 1978.
1608	MANUAL DIGESTION IN ACIDIC PERMANGANATE FOLLOWED BY REDUCTION, THEN DETERMINED BY ATOMIC ABSORPTION BY DIRECT ASPIRATION.
1611	FLAMELESS ATOMIC ABSORPTION ON AUTOANALYZER. ORGANOMERCURY COUMPOUNDS IN THE SAMPLE ARE OXIDIZED TO INORGANIC MERCURY BY SULPHURIC ACID AND U.V. PHOTOOXIDATION. MERCURIC IONS ARE THEN REDUCED WITH STANNOUS SULFATE IN HYDROXYLAMINE SULFATE-SODIUM CHLORIDE SOLUTION TO ELEMENTAL MERCURY. THE ELEMENTAL MERCURY IS SPARGED FROM SOLUTION WITH A STREAM OF AIR AND PASSED THROUGH A COLD VAPOUR ABSORPTION CELL. THE ABSORBANCE IS MEASURED SPECTROPHOTOMETRICALLY AT 253.7 NM AND COMPARED WITH THOSE OF IDENTICALLY PREPARED STANDARD HG SOLUTIONS. THE METHOD IS APPLICABLE TO SURFACE, GROUND, AND SALINE WATERS. TOTAL: DICHROMATE IS ALSO USED IN ORDER TO MORE EFFICIENTLY EXTRACT AND OXIDIZE HG PRESENT IN PARTICULATE MATTER; THE WHOLE SAMPLE IS ABSORBED. SEDIMENT SAMPLES ARE FINELY SUSPENDED IN DISTILLED WATER (TO LESS THAN 1G SOLIDS/L) AND THE HOMOGENIZED SOLUTIONS ARE TREATED AS WATER SAMPLES. FISH TISSUE: THE CONCENTRATION IS BASED ON THE WET WEIGHT OF THE TISSUE USED. REF: AGEMIAN, H. AND CHAU, A.S.Y. "AN AUTOMATED METHOD FOR THE DETERMINATION OF MERCURY IN FRESH AND SALINE WATERS BY ULTRAVIOLET DIGESTION AND COLD VAPOUR ATOMIC ABSORPTION SPECTROSCOPY", SPECIAL SERVICES SECTION, WATER QUALITY BRANCH, CCIW, BURLINGTON, ONT. (1977) REQUESTED BY: WQB BURLINGTON, JAN. 1978
1612	ATOMIC ABSORPTION - COLD VAPOUR, AFTER DIGESTION BY HCL@HNO3
1613	FISH TISSUE SAMPLES ARE SOLUBILIZED EITHER BY H2O2 OXIDATION FOLLOWED BY SULFURIC ACID DIGESTION AT 60 C OR DIGESTION WITH A MIXTURE OF 2:1 H2SO4-HNO3 AT 60C. FOLLOWING ACID DISSOLUTION KMNO4 AND K2S2O8 ARE ADDED TO OXIDIZE SOLUBLE ORGANOMERCURIALS WHICH WERE NOT OXIDIZED IN THE ACID DISSOLUTION STEP. EXCESS OXIDANTS ARE REDUCED WITH HYDROXYLAMMONIUM SULFATE. AN ALIQUOT OF SOLUTION IS ANALYZED VIA AN AUTOMATED COLD VAPOR ATOMIC ABSORPTION

ENVIRODAT/NAQUADAT METHOD CODES AND DESCRIPTIONS

METHOD CODE	DESCRIPTION
1613	TECHNIQUE USING A SOLUTION OF STANNOUS SULFATE TO REDUCE INORGANIC MERCURY TO ITS ELEMENTAL FORM. ABSORBANCE IS MEASURED AT 253.7 NM. REF: AGEMIAN, HAIG, AND CHEAN, V., 1978 ''SIMULTANEOUS EXTRACTION OF MERCURY AND ARSENIC FROM FISH TISSUES, AND AN AUTOMATED DETERMINATION OF ARSENIC BY ATOMIC ABSORPTION'' ANAL. CHIM. ACTA, 101, 193-197. REQ'D BY: WQB, OTTAWA, NOV. 1979.
1614	THE METHOD IS IDENTICAL TO 80052 EXCEPT THAT THE CONCENTRATION IS BASED ON THE WET WEIGHT OF THE TISSUE USED. REQ'D BY: WATER QUALITY BRANCH, MONCTON, DEC. 1981. MERCURY FISH TISSUE HG MG/KG
1615	HOMOGENIZED FISH TISSUE IS DIGESTED WITH A MIXTURE OF CONCENTRATED SULFURIC AND NITRIC ACID AT 180 C, OXIDIZING METHYLMERCURY TO INORGAC MERCURY COMPOUNDS THAT ARE REDUCED TO ELEMENTAL MERCURY USING SNCL2 AND HYDROXYLAMINE IN AN AUTOMATED SYSTEM. THE SPARGED MERCURY VAPOUR IS PASSED THROUGH AN ABSORPTION CELL OF A U.V. MERCURY MONITOR WHERE THE ABSORBANCE IS MEASURED AT 253.7 NM. REF: MERCURY: METHODS FOR SAMPLING, PRESERVATION AND ANALYSIS - ENVIRONMENT CANADA 1977. REQ'D BY: WATER ANALYSIS SECTION, ALBERTA ENVIRONMENTAL CENTRE, MARCH 1982
1617	REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977. THALLIUM TOTAL TL MG/L
1620	THE SAMPLE IS OXIDIZED BY DIGESTION WITH SODIUM PERSULFATE IN A HCL MEDIA. THE PH IS ADJUSTED TO 4.7 AND THE METAL IS CHELATED WITH APDC AND EXTRACTED INTO MIBK. THE MIBK EXTRACT IS ANALYZED USING ATOMIC ABSORPTION AT 276.7 NM. REQ'D BY: POLLUTION CONTROL LABORATORY, ALBERTA ENVIRONMENT, AUGUST, 1984.
1628	SAME AS 82001 EXCEPT THE SAMPLE IS DIGESTED WITH AQUA-REGIA. REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977. LEAD TOTAL PB MG/L
1629	THIS METHOD IS IDENTICAL TO THAT OF PARAMETER CODE 82002 EXCEPT WITH PRECONCENTRATION. DETECTION LIMIT IS 1 UG/L. REQ'D BY: DALHOUSIE UNIVERSITY, JULY 1976. LEAD TOTAL PB MG/L
1641	COLOURIMETRY WITH DITHIZONE.
1656	ALKYL-PB IS EXTRACTED WITH HEXANE AFTER CHELATION WITH DITHIOCARBAMATE, THEN BUTYLATED BY GRIGNARD REAGENT. ANALYTICAL MEASUREMENT IS DONE BY GC/ATOMIC ABSORPTION SPECTROPHOTOMETER AS DETECTOR,AT 217 MU. 'THE PRESENT CODE REFERS TO PB++++ WHITHOUT ANY ALKYL GROUPS ATTACHED).
1660	ALKYL-PB IS EXTRACTED WITH HEXANE AFTER CHELATION WITH DITHIOCARBAMATE, THEN BUTYLATED BY GRIGNARD REAGENT. ANALYTICAL MEASUREMENT IS DONE BY GC/ATOMIC ABSORPTION SPECTROPHOTOMETER AS DETECTOR,AT 217 MU. (THE PRESENT CODE REFERS TO PB++++ WITH 2 METHYL GROUPS ATTACHED)
1661	ALKYL-PB IS EXTRACTED WITH HEXANE AFTER CHELATION WITH DITHIOCARBAMATE. THEN BUTYLATED BY GRIGNARD REAGENT. ANALYTICAL MEASUREMENT IS DONE BY GC/ATOMIC ABSORPTION. SPECTROPHOTOMETER AS DETECTOR,AT 217 MU. (THE PRESENT CODE REFERS TO PB++++ WITH 3 METHYL GROUPS ATTACHED).
1662	ALKYL-PB IS EXTRACTED WITH HEXANE AFTER CHELATION WITH DITHIOCARBAMATE, THEN BUTYLATED BY GRIGNARD REAGENT. ANALYTICAL MEASUREMENT IS DONE BY GC/ATOMIC ABSORPTION SPECTROPHOTOMETER AS DETECTOR,AT 217 MU. (THE PRESENT CODE REFERS TO PB++++ WITH 4 METHYL GROUPS ATTACHED)
1663	ALKYL-PB IS EXTRACTED WITH HEXANE AFTER CHELATION WITH DITHIOCARBAMATE, THEN BUTYLATED BY GRIGNARD REAGENT. ANALYTICAL MEASUREMENT IS DONE BY GC/ATOMIC ABSORPTION SPECTROPHOTOMETER AS DETECTOR,AT 217 MU. (THE PRESENT CODE REFERS TO PB++++ WITH 2 ETHYL GROUPS ATTACHED)

METHOD CODE	DESCRIPTION
1664	ALKYL-PB IS EXTRACTED WITH HEXANE AFTER CHELATION WITH DITHIOCARBAMATE, THEN BUTYLATED BY GRIGNARD REAGENT. ANALYTICAL MEASUREMENT IS DONE BY GC/ATOMIC ABSORPTION SPECTROPHOTOMETER AS DETECTOR,AT 217 MU. (THE PRESENT CODE REFERS TO PB++++ WITH 3 ETHYL GROUPS ATTACHED)
1665	ALKYL-PB IS EXTRACTED WITH HEXANE AFTER CHELATION WITH DITHIOCARBAMATE, THEN BUTYLATED BY GRIGNARD REAGENT. ANALYTICAL MEASUREMENT IS DONE BY GC/ATOMIC ABSORPTION SPECTROPHOTOMETER AS DETECTOR,AT 217 MU. (THE PRESENT CODE REFERS TO PB++++ WITH 4 ETHYL GROUPS ATTACHED)
1666	ALKYL-PB IS EXTRACTED WITH HEXANE AFTER CHELATION WITH DITHIOCARBAMATE, THEN BUTYLATED BY GRIGNARD REAGENT. ANALYTICAL MEASUREMENT IS DONE BY GC/ATOMIC ABSORPTION SPECTROPHOTOMETER AS DETECTOR,AT 217 MU. (THE PRESENT CODE REFERS TO PB++++ WITH 3 METHYL AND 1 ETHYL GROUP ATTACHED).
1667	ALKYL-PB IS EXTRACTED WITH HEXANE AFTER CHELATION WITH DITHIOCARBAMATE, THEN BUTYLATED BY GRIGNARD REAGENT. ANALYTICAL MEASUREMENT IS DONE BY GC/ATOMIC ABSORPTION SPECTROPHOTOMETER AS DETECTOR,AT 217 MU. (THE PRESENT CODE REFERS TO PB++++ WITH 2 METHYL AND 2 ETHYL GROUPS ATTACHED).
1668	ALKYL-PB IS EXTRACTED WITH HEXANE AFTER CHELATION WITH DITHIOCARBAMATE, THEN BUTYLATED BY GRIGNARD REAGENT. ANALYTICAL MEASUREMENT IS DONE BY GC/ATOMIC ABSORPTION SPECTROPHOTOMETER AS DETECTOR,AT 217 MU. (THE PRESENT CODE REFERS TO PB++++ WITH 1 METHYL AND 3 ETHYL GROUPS ATTACHED).
1681	REQ'D BY: WQB, CALGARY, FEBRUARY 1976.
1682	EXTRACTION OF BI-210 WITH DIETHYLAMMONIUM DIETHYLDITHIO-CARBAMATE (DDTC) FROM 2M HCL SOLUTION. AFTER EVAPORATION THE ORGANIC EXTRACT IS DISSOLVED IN NITRIC ACID, DILUTED WITH BIOCL PRECIPITATED AS THE FINAL COUNTING FORM OF BI-210. THE QUANTITY OF BI-210 PRESENT IS DETERMINED BY BETA COUNTING WITH A LOW BACKGROUND COUNTING SYSTEM. THE PB-210 CONCENTRATION IS CALCULATED FROM EQUILIBRIUM EXISTING BETWEEN IT AND THE BI-210. REQ'D BY: SASK. RESEARCH COUNCIL, FEB.1984
1683	ANALYSIS PERFORMED BY THE MINING COMPANIES LAB AND AS REQ'D BY: THE MPCB, SASK. ENVIRONMENT, NOV. 1980.
1684	THIS METHOD IS IDENTICAL TO PARAMETER CODE 48601 EXCEPT THAT ABSORBANCE IS MEASURED AT 283.3 NM. THE DETECTION LIMIT IS 0.1 MG/KG. REQ'D BY: WQB, OTTAWA, NOV. 1979. LEAD FISH TISSUE PB MG/KG
1698	DEPOSITION ON SILVER DISCS, THEN ALPHA COUNTED ON SCINTILLATION COUNTER REQ'D BY: SASK. ENVIRONMENT, APRIL 1980.
1700	BASO4 PRECIPITATION AND ALPHA COUNTED ON SCINTILLATION COUNTER. ENVIRONMENT, APRIL 1980.
1704	ALL SAMPLES COLLECTED ARE ACIDIFIED TO 0.2N WITH CONCENTRATED HYDROCHLORIC ACID AS A PRESERVATIVE. FOR 226RA ANALYSIS A 3.5-LITRE ALIQUOT IS TAKEN AND BACL2 CARRIER ADDED. SEPARATION OF RADIUM/BARIUM IS ACHIEVED BY THE PRECIPITATION OF RA/BASO4 ON THE ADDITION OF CONCENTRATED SULPHURIC ACID. THE PREPITATE IS REDISSOLVED IN AN EDTA/NAOH SOLUTION AND HEATED UNTIL CLEAR. THIS CLEAR SOLUTION IS THEN PUT INTO BUBBLERS AND DEGASSED TO REMOVE ANY INITIAL RADON GAS PRESENT. AFTER ALLOWING 3-4 DAYS FOR GROWTH OF RADON, THESE BUBBLERS ARE DE-EMANATED INTO SCINTILLATION COUNTING CELLS AND COUNTED ON AN EDA RADON SCINTILLATION COUNTER (RD-200). THE CELLS ARE STANDARDIZED BY MAKING UP STANDARD 226RA SOLUTIONS, DE-EMANATING INTO SCINTILLATION COUNTING CELLS AND COUNTING THEM AFTER A SUITABLE GROWTH PERIOD. A STANDARDIZATION FACTOR FOR EACH CELL IS CALCULATED AND USED

METHOD CODE	DESCRIPTION
1704	TO DETERMINE THE AMOUNT OF 226RA PRESENT IN A SAMPLE FROM ITS COUNTING RATE. FOR FISH: A LARGE SAMPLE IS DIEGSTED WITH NITRIC ACID AND HYDROGEN PEROXIDE TO FORM A CLEAR SOLUTION. REQ'D BY: NWRI, BURLINGTON, FEBRUARY 1982.
1705	IN THIS PROCEDURE RADIUM IS ISOLATED BY FIRST PRECIPITATING WITH LEAD SULFATE AND THEN SELECTIVELY PRECIPITATING WITH BARIUM SULFATE. THE RADIUM IN THE PRECIPITATE IS DETERMINED EITHER BY ALPHA SPECTROSCOPY OR BY GROSS ALPHA COUNTING IF THORIUM IS KNOWN TO BE ABSENT. FISH: ASH WEIGHT. REQ'D BY: SASK. RESEARCH COUNCIL, FEB. 1984.
1706	RADIUM IS ISOLATED BY COPRECIPITATION WITH BARIUM SULFATE. THE PRECIPITATE IS DISSOLVED IN ALKALINE EDTA SOLUTION AND TRANSFERED TO A RADON BUBBLER. AFTER A SUITABLE INGROWTH PERIOD THE RADON IS TRANSFERED TO A LUCAS CELL AND COUNTED ON A SCINTILLATION COUNTER. RADIUM-266 IS PROPORTIONAL TO THE AMOUNT OF RADON-222 DETERMINED. FOR DISSOLVED: THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER PRIOR TO THE PRESERVATION. FISH: ASH WEIGHT. REQ'D BY: SASK. RESEARCH COUNCIL, FEB. 1984.
1708	ALL SAMPLES COLLECTED ARE ACIDIFIED TO 0.2N WITH CONCENTRATED HYDROCHLORIC ACIDE AS A PRESERVATIVE. FOR THE DETERMINATION OF 226RA IN FISH AND OTHER BIOTA SAMPLES, A LARGE SAMPLE IS DIGESTED WITH NITRIC ACID AND HYDROGEN PEROXIDE TO FORM A CLEAR SOLUTION. THIS CLEAR SOLUTION IS THEN ANALYSED BY THE METHOD USED FOR WATER SAMPLES (86502) REQ'D BY: NWRI, BURLINGTON, FEBRUARY 1982 RADIUM RADIATION FISH RA-226 BG/G
1711	-FOR TOTAL: THORIUM IS ISOLATED BY COPRECIPITATION WITH LANTHANUM IN BOTH AN HYDROXIDE PRECIPITATION AND A FLUORIDE PRECIPITATION. THE FLUORIDE PRECIPITATION IS DISSOLVED AND THE THORIUM SEPARATED FROM THE LANTHANUM BY EXTRACTING WITH THENOYLTRIFLUOROACETONE (TTA) IN PETROLEUM ETHER. THE THORIUM IS BACK EXTRACTED WITH NITRIC ACID AND DETERMINED COLORIMETRICALLY WITH ARSENAZO III. -FOR RADIATION: EXTRACTED FROM THE TTA EXTRACT IT IS ADDED TO AN OCALATE ELECTROLYTE AND ELECTRO-DEPOSITED ONTO A STAINLESS STEEL PLANCHET. THE INDIVIDUAL ISOTOPE ARE DETERMINED BY ALPHA-SPECTROSCOPY THE PREPARED PLANCHET MUST BE COUNTED IMMEDIATELY WHEN TH-227 IS REQUIRED, OTHERWISE THE TH-228 DAUGHTERS WILL INTERFERE. REQ'D BY: SASK. RESEARCH COUNCIL , FEB 1984.
1712	NITRIC ACID - PERCHLORIC ACID DIGESTION, PLUS 5X PRECONCENTRATION AT SAME TIME. ANALYSIS READ ON A INDUCTIVLY COUPLED PLASMA SPEC. REQ'D BY: SASK. ENVIRONMENT. METHODOLOGY FROM SRC, AUG 1982.
1721	URANYL IONS PRODUCE FLUORESCENCE WHEN FUSED WITH NAF. FLUORESCENCE IS MEASURED WITH A TURNER FLUORIMETER AND IS PROPORTIONAL TO URANIUM CONCENTRATION. BIOLOGICAL MATERIAL IS DRY ASHED (HASL 1972) DISSOLVED IN HNO3 AND THEN ANALYZED BY SAME METHOD AS A WATER SAMPLE. REQ'D BY: SASK, RESEARCH COUNCIL , FEB, 1984.
1722	FLUOROMETRY.
1723	CODE REQ'D BY WATER QUALITY BRANCH CALGARY FEBRUARY 1976 URANIUM DISSOLVED U UG/L
1724	LASER-INDUCED FLUORESCENCE. SODIUM PYROPHOSPHATE AND A BUFFER, SODIUM DIHYDROGEN PHOSPHATE, ARE ADDED TO AN ACIDIFIED WATER SAMPLE. UPON EXCITATION BY A PULSED NITROGEN LASER EMITTING AT 337 NM, THE URANYL ION, COMPLEXED BY THE PYROPHOSPHATE, FLUORESCES AT 494, 516 AND 540 NM. INTERFERENCES FROM ORGANIC SUBSTANCES WHICH FLUORESCE IN THE 400 NM AREA ARE MINIMIZED BY OPTICAL FILTERS AND BY MEASURING THE SLOWLY DECAYING $(UO_2)^{2+}$ FLUORESCENCE AFTER THE DECAY OF ANY ORGANIC FLUORESCENCE (20 NSEC). THE CONCENTRATION OF URANIUM IN THE SAMPLE IS DETERMINED BY THE METHOD OF STANDARD ADDITIONS. REF: B.C. MINISTRY OF ENVIRONMENT ENVIRONMENTAL LABORATORY REQ'D BY: WQB, VANCOUVER, MAY 1981.

METHOD CODE	DESCRIPTION
1725	DIRECT FLUOROMETRIC PROCEDURE.
1728	NITRIC ACID - PERCHLORIC ACID DIGESTION, PLUS 5X PRECONCENTRATION AT SAME TIME. ANALYSIS READ ON A INDUCTIVLY COUPLED PLASMA SPEC. REQ'D BY: SASK. ENVIRONMENT, METHODOLOGY FROM SRC, AUG. 1982.
1730	CAPILLARY COLUMN GAS CHROMATOGRAPHY. SODIUM CHLORIDE (200G) IS ADDED TO 1 L. WATER SAMPLE. THIS SAMPLE IS THEN EXTRACTED WHEN METHYLENE CHLORIDE. THE EXTRACT IS DRIED AND CONCENTRATED USING ISOOCTANE AS KEEPER. THIS SOLUTION IS MADE UP OF 2ML AND SPIKED WITH DECACHLOROBIPHENYL AS INTERNAL STANDARD. 1UL OF THIS SOLUTION IS INJECTED INTO A CAPILLARY GAS CHROMATOGRAPH EQUIPPED WITH A 30 METER SPB-608 COLUMN AND AN ELECTRON CAPTURE DETECTOR. THIS PESTICIDE IS CONFIRMED BY USING GC/MS ANALYSIS WHEREVER APPLICABLE. REQ'D BY: ALBERTA ENVIRONEMENTAL, CENTRE, VEGREVILLE, ALBERTA.
1759	CAPILLARY COLUMN GAS CHROMATOGRAPHY. THE WATER SAMPLE (1 L) IS EXTRACTED WITH METHYLENE CHLORIDE. THE EXTRACT IS DRIED AND CONCENTRATED USING ISOOCTANE AS KEEPER. THIS SOLUTION IS MADE UP TO 2 ML AND SPIKED WITH DECACHLOROBIPHENYL AS INTERNAL STANDARD. 1 UL OF THIS SOLUTION IS INJECTED INTO A CAPILLARY GAS CHROMATOGRAPH EQUIPPED WITH A 25 METER DB-5 COLUMN AND AN ELECTRON CAPTURE DETECTOR. THE PESTICIDE IS CONFIRMED BY USING GC/MS ANALYSIS WHEREVER APPLICABLE. REQUIRED BY: ALBERTA ENVIRONMENTAL CENTRE, VEGREVILLE, ALBERTA.
1766	CAPILLARY COLUMN GAS CHROMATOGRAPHY. THE 1L WATER SAMPLE IS ACIDIFIED TO PH 2.0 AND SODIUM CHLORIDE (200 G) IS ADDED TO IT. THIS SAMPLE IS EXTRACTED WITH METHYLENE CHLORIDE. THE EXTRACT IS DRIED AND CONCENTRATED USING ISOOCTANE AS KEEPER AND METHYLATED USING DIAZOMETHANE. ONE UL OF THIS EXTRACT IS INJECTED INTO A CAPILLARY GAS CHROMATOGRAPH EQUIPPED WITH A 30 METER DB-5 COLUMN AND AN ELECTRON CAPTURE DETECTOR. THE PESTICIDE IS CONFIRMED BY USING GC/MS ANALYSTS WHEREVER APPLICABLE. REQUIRED BY: ALBERTA ENVIRONMENTAL CENTRE, VEGREVILLE, ALBERTA.
1774	HIGH PERFORMANCE LIQUID CHROMATOGRAPHY. THE SAMPLE (1L) IS BASIFIED WITH KOH TO PH 9.0 AND EXTRACTED WITH METHYLENE CHLORIDE. THE FINAL EXTRACT IS MADE UP TO 2 ML USING ACETONITRILE. FIFTY UL OF THIS EXTRACT IS INJECTED INTO A HIGH PERFORMANCE LIQUID CHROMATOGRAPH EQUIPPED WITH A REVERSE PHASE C18 COLUMN AND AN ULTRAVIOLET DETECTOR SET AT 254 NM. FIFTY PERCENT ACETONITRILE-WATER MIXTURE AT A FLOW RATE OF 1.2 ML PER MIN IS USED AS THE MOBILE PHASE. REQ'D BY: ALBERTA ENVIRONMENTAL CENTRE, VEGREVILLE, ALBERTA.
1775	HIGH PERFORMANCE LIQUID CHROMATOGRAPHY. THE SAMPLE (1L) IS ACIDIFIED WITH PHOSPHORIC ACID TO PH 2.0 AND EXTRACTED WITH METHYLENE CHLORIDE. THE FINAL EXTRACT IS MADE UP TO 2 ML USING ACETONITRILE. TEN UL OF THIS EXTRACT IS INJECTED INTO A HIGH PERFORMANCE LIQUID CHROMATOGRAPH EQUIPPED WITH A REVERSE PHASE C18 COLUMN AND AN ULTRAVIOLET DETECTOR SET AT 220 NM. SIXTY FIVE PERCENT ACETONITRILE WATER MIXTURE AT A FLOW RATE OF 0.5 ML PER MIN IS USED AS THE MOBILE PHASE. REQ'D BY: ALBERTA ENVIRONMENTAL CENTRE, VEGREVILLE, ALBERTA.
1777	HIGH PERFORMANCE LIQUID CHROMATOGRAPHY. THE 200 ML WATER SAMPLE IS PASSED THROUGH A C18 SEP-PAK CARTRIDGE. THE ADSORBED DIFENZOQUAT IS ELUTED WITH 5 ML OF POTASSIUM DIHYDROGEN ORTHOPHOSPHATE SOLUTION IN 50(ACETONITRILE-WATER AT A PH OF 2.8. THE RESULTING EXTRACT (175 UL ALIQUOT) IS INJECTED INTO A HIGH PERFORMANCE LIQUID CHROMATOGRAPH EQUIPPED WITH A PARTISIL PXS 10/24 ODS COLUMN AND A UV ABSORBANCE DETECTOR AT 255 NM. FIFTY PERCENT 0.02 M POTASSIUM DIHYDROGEN ORTHOPHOSPHATE-ACETONITRILE MIXTURE AT A FLOW RATE OF 2 ML PER MIN IS USED AS THE MOBILE PHASE. REQUIRED BY: ALBERTA ENVIRONMENTAL CENTRE, VEGREVILLE, ALBERTA.
1778	HIGH PERFORMANCE LIQUID CHROMATOGRAPHY. ADD 1.9 BORAX BUFFER TO 500 ML WATER SAMPLE. A 100 ML ALIQUOT OF THIS SAMPLE IS PASSED THROUGH A C18 SEP-PAK CARTRIDGE. THE ADSORBED DIQUAT IS ELUTED WITH 5 ML OF MONOBASIC AMMONIUM PHOSPHATE SOLUTION THE RESULTING EXTRACT (100 UL ALIQUOT) IS INJECTED INTO A

METHOD CODE	DESCRIPTION
1778	HIGH PERFORMANCE LIQUID CHROMATOGRAPH EQUIPPED WITH A PARTISIL PXS 10/24 ODS COLUMN AND A UV ABSORBANCE DETECTOR AT 310 NM. MONOBASIC AMMONIUM PHOSPHATE SOLUTION IN THIRTY PERCENT ACETONITRILE-WATER MIXTURE AT A FLOW RATE OF 2 ML PER MIN IS USED AS THE MOBILE PHASE. REQ'D: ALBERTA ENVIRONMENTAL, CENTRE, VEGREVILLE ALBERTA.
1780	CAPILLARY COLUMN GAS CHROMATOGRAPHY. THE WATER SAMPE (1L) IS ACIDIFIED WITH GLACIAL ACETIC ACID AND EXTRACTED WITH METHYLENE CHLORIDE. THE EXTRACT IS DRIED, CONCENTRATED USING TOLUENE AS KEEPER AND METHYLATED USING DIAZOMETANE. THIS EXTRACT IS CLEANED UP ON A FLORISIL COLUMN AND INJECTED INTO A CAPILLARY GAS CHROMATOGRAPH EQUIPPED WITH A 30 METER DB-1 COLUMN AND AN ELECTRON CAPTURE DETECTOR. REQ'D: ALBERTA ENVIRONMENTAL CENTRE, VEGREVILLE, ALBERTA.
1781	CAPILLARY COLUMN GAS CHROMATOGRAPHY. THE WATER SAMPLE (1L) IS EXTRACTED WITH METHYLENE CHLORIDE. THE EXTRACT IS DRIED AND CONCENTRATED USING ISOOCTANE AS KEEPER. THIS SOLUTION IS MADE UP TO 2 ML AND SPIKED WITH DECACHLOROBIPHENYL AS INTERNAL STANDARD. ONE UL OF THIS SOLUTION IS INJECTED INTO A CAPILLARY GAS CHROMATOGRAPH EQUIPPED WITH A 25 METER DB-5 COLUMN AND A THERMIONIC SPECIFIC DETECTOR. THE PESTICIDE IS CONFIRMED BY USING GC/MS ANALYSIS WHEREVER APPLICABLE. REQ'D: ALBERTA ENVIRONMENTAL CENTRE, VEGREVILLE, ALBERTA.
1798	CAPILLARY COLUMN GAS CHROMATOGRAPHY. THE METHOD IS IDENTICAL TO THAT OF PARAMETER ASPON (NAQUADAT NO. 94000). THE DETECTION LIMIT IS 0.15 UG/L. REQUIRED BY: ALBERTA ENVIRONMENTAL CENTRE, VEGREVILLE, ALBERTA PARAOXON UG/L
1811	CAPILLARY COLUMN GAS CHROMATOGRAPHY/MASS SPECTROMETRY. SURFACE WATER (1L) IS SPIKED WITH DEUTERATED SURROGATE STANDARDS AND SERIALLY EXTRACTED WITH METHYLENE CHLORIDE AT A PH GREATER THAN 11 AND AGAIN AT A PH LESS THAN 2 USING A SEPARATORY FUNNEL. THE METHYLENE CHLORIDE EXTRACT IS DRIED, CONCENTRATED TO A VOLUME OF 100 UL, AND SPIKED WITH DEUTERATED INTERNAL STANDARDS. THE SOLUTION IS ANALYSED USING A CAPILLARY COLUMN AND MASS SPECTROMETRY DETECTION. SCREENING IS PERFORMED USING THE RELATIVE RETENTION TIME AND RELATIVE ABUNDANCES OF TWO OR MORE CHARACTERISTIC IONS. FULL IDENTIFICATION OF ORGANICS SCREENED AND QUANTIFICATION ARE PERFORMED USING FULL REFERENCE SPECTRA, MULTI INTERNAL STANDARDS AND EXTRACTED AREAS OF CHARACTERISTIC IONS. NON-TARGET COMPOUNDS ARE TENTATIVELY IDENTIFIED USING MASS SPECTRAL LIBRARIES, APPROXIMATE CONCENTRATION RANGES OF WHICH ARE BASED ON RELATIVE TOTAL ION COUNTS. REQ'D BY: ALBERTA ENVIRONMENTAL CENTRE, VEGREVILLE, ALBERTA.
1867	PURGE-AND-TRAP/CAPILLARY COLUMN GAS CHROMATOGRAPHY/MASS SPECTROMETRY. SURFACE WATER (150 ML) IS SPIKED WITH DEUTERATED SURROGATE STANDARDS AND INTERNAL STANDARDS, PURGED WITH HELIUM, AND VOLATILES ADSORBED ONTO A TENAX GC TRAP. THIS IS FOLLOWED BY THERMAL DESORPTION AND ANALYSIS USING A 25 METER DB-5 CAPILLARY COLUMN WITH MASS SPECTRO-METRY DETECTION. SCREENING IS PERFORMED USING THE RELATIVE RETENTION TIME AND RELATIVE ABUNDANCES OF TWO OR MORE CHARACTERISTIC IONS. FULL IDENFICATION OF ORGANICS SCREENED AND QUANTIFICATION ARE PERFORMED USING FULL REFERENCE SPECTRA, MULTI INTERNAL STANDARDS AND EXTRACTED AREAS OF CHARACTERISTIC IONS. NON-TARGET COMPOUNDS ARE TENTATIVELY IDENTIFIED USING MASS SPECTRAL LIBRARIES, APPROXIMATE CONCENTRATION RANGES OF WHICH ARE BASED ON RELATIVE TOTAL-ION COUNTS. REQ'D BY: ALBERTA ENVIRONMENTAL, VEGREVILLE, ALBERTA.
1895	BATCH PURGE-AND-TRAP/CAPILLARY COLUMN GAS CHROMATOGRAPHY/ MASS SPECTROMETRY. UP TO 10 BATCH SAMPLES OF SURFACE WATER (15 ML) IS SPIKED WITH DEUTERATED SURROGATES STANDARDS AND INTERNAL STANDARDS, PURGED WITH HELIUM, AND VOLATILES ADSORBED ONTO A TENAX GC TRAP. THIS IS FOLLOWED BY A THERMAL DESORPTION AND ANALYSIS USING A 50 METER HP ULTRA 2 CAPILLARY COLUMN WITH MASS SPECTROMETRY DETECTION. SCREENING IS PERFORMED USING THE RELATIVE RETENTION TIME AND RELATIVE ABUNDANCES OF TWO OR MORE CHARACTERISTIC IONS. FULL IDENTIFICATION OF ORGANICS SCREENED AND QUALIFICATIONS ARE

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METHOD CODE	DESCRIPTION
1895	PERFORMED USING FULL REFERENCE SPECTRA, MULTI INTERNAL STANDARDS AND EXTRACTED AREAS OF CHARACTERISTIC IONS. REQ'D BY: ALBERTA ENVIRONMENTAL CENTRE, VEGREVILLE, ALBERTA.
1930	CAPILLARY COLUMN GAS CHROMATOGRAPHY/MASS SPECTROSCOPY. SURFACE WATER (1L) IS SPIKED WITH DEUTERATED SURROGATE STANDARDS AND SERIALLY EXTRACTED WITH METHYLENE CHLORIDE AT A PH 7 USING A SEPARATORY FUNNEL. THE METHYLENE CHLORIDE EXTRACT IS DRIED, CONCENTRATED TO A VOLUME OF 100 UL, AND SPIKED WITH DEUTERATED INTERNAL STANDARDS. 2 UL OF THIS SOLUTION IS ANALYZED USING A 25 METER CROSS-LINKED METHYL SILICONE CAPILLARY COLUMN AND MASS SPECTROSCOPY DETECTION. SCREENING IS PERFORMED USING THE RELATIVE RETENTION TIME AND RELATIVE ABUNDANCES OF TWO OR MORE CHARACTERISTIC IONS. FULL IDENTIFICATION OF ORGANIC SCREENED AND QUANTIFICATION ARE PERFORMED USING FULL REFERENCE SPECTRA, MULTI INTERNAL STANDARDS AND EXTRACTED AREAS OF CHARACTERISTIC IONS. REQ'D BY: ALBERTA ENVIRONMENTAL CENTRE, VEGREVILLE, ALBERTA.
1946	CAPILLARY COLUMN GAS CHROMATOGRAPHY. THE WATER SAMPLE(1L) IS ACIDIFIED TO PH 2.0 AND TO IT IS ADDED 50 ML OF SATURATED SODIUM SULFATE SOLUTION. THE SAMPLE IS EXTRACTED WITH METHYLENE CHLORIDE, DRIED AND CONCENTRATED USING ISOOCTANE AS KEEPER. THIS EXTRACT IS DERIVATIZED USING 30(POTASSIUM CARBONATE SOLUTION AND 5(PENTAFLUOROBENZYL BROMIDE IN ACETONE. THE RESULTING EXTRACT IS CLEANED UP ON AN ACTIVATED SILICA GEL COLUMN AND FINALLY MADE UP IN 2 ML BENZENE. ONE UL OF THIS EXTRACT IS INJECTED INTO A CAPILLARY GAS CHROMATOGRAPH EQUIPPED WITH 30 METER DB-5 COLUMN AND AN ELECTRON CAPTURE DETECTOR. THE PESTICIDE IS CONFIRMED BY USING GC/MS ANALYSIS WHEREVER APPLICABLE. REQ'D BY: ALBERTA ENVIRONMENTAL CENTRE, VEGREVILLE, ALBERTA.
1947	CAPILLARY G C METHOD. WATER SAMPLE EXTRACTED USING LARGE VOLUME EXTRACTOR. MEASUREMENT BY G C EQUIPPED WITH ELECTRON CAPTURE DETECTOR. REQ'D BY: NWQL, BURLINGTON, MARCH 1988.
1966	HIGH PERFORMANCE LIQUID CHROMATOGRAPHY. THE SAMPLE (1L) IS EXTRACTED WITH METHYLENE CHLORIDE. THE EXTRACT IS DRIED AND CONCENTRATED USING ISOOCTANE AS KEEPER. TEN UL OF THE EXTRACT IS INJECTED INTO A HIGH PERFORMANCE LIQUID CHROMATOGRAPH EQUIPPED WITH 25 CM SUPELCOSIL LC-18 COLUMN AND AN ULTRAVIOLET DETECTOR SET AT 254 NM. FIFTY PERCENT ACETONITRILE-WATER MIXTURE AT A FLOW RATE OF 0.5 ML PER MIN IS USED AS THE MOBILE PHASE. REQ'D BY: ALBERTA ENVIRONMENTAL CENTRE, VEGREVILLE, ALBERTA.
1970	CAPILLARY GC-MS METHOD. SEDIMENT SAMPLE IS ACIDIFIED WITH 50 PERCENT SULPHURIC ACID TO A PH OF 2 AND THEN EXTRACTED BY 1:1 MIXTURE OF HEXANE:ACETONE USING SONIFIER, EXTRACT IS CONCENTRATED TO DESIRED VOLUME AND ANALYSED BY GC-MS. REQ'D BY: NWQL, BURLINGTON, MAY 1988.
1981	CAPILLARY GC METHOD. WATER SAMPLE IS EXTRACTED BY DICHLOROMETHANE, SUSEQUENTLY CONCENTRATED, CLEANED AND FRACTIONATED ON SILICA GEL COLUMN. TWO FRACTIONS A AND B ARE COLLECTED SEPARATELY AND CONCENTRATED TO DESIRED VOLUMES THEN RECOMBINED AND SUBSEQUENTLY ANALYSED BY GC/MSD SYSTEM. REQ'D BY: NWQL, BURLINGTON, MAY 1988.
1997	CAPILLARY GC METHOD. WATER SAMPLE IS SPIKED WITH SURROGATE MIXTURE AND THEN EXTRACTED WITH DICHLOROMETHANE, SUBSEQUENTLY CONCENTRATED, CLEANED AND FRACTIONATED ON SILICA GEL COLUMN. TWO FRACTIONS ARE COLLECTED AND CONCENTRATED TO DESIRED VOLUMES AND ANALYSED ON GC EQUIPPED WITH ELECTRON CAPTURE DETECTOR. REQ'D BY: NWQL, BURLINGTON, MAY 1988.
2003	CAPILLARY GC METHOD. 40 LITRES OF WATER SAMPLE ARE SPIKED WITH SURROGATE MIXTURE AND THEN EXTRACTED BY LARGE VOLUME EXTRACTOR. CLEANED AND FRACTIONATED ON A SILICA GEL COLUMN. TWO FRACTIONS A AND B ARE COLLECTED AND CONCENTRATED TO DESIRED VOLUMES AND ANALYSED BY GC-ECD. REQ'D BY: NWQL, BURLINGTON, MAY 1988.
2009	CAPILLARY G.C. METHOD. WATER SAMPLE EXTRACTED USING LARGE VOLUME EXTRACTOR, SUBSEQUENTLY CONCENTRATED AND FRACTIONATED ON SILICA GEL COLUMN. TWO FRACTIONS A AND B ARE COLLECTED

METHOD CODE	DESCRIPTION
2009	WHICH ARE CONCENTRATED TO DESIRED VOLUMES AND THEN INJECTED ON G.C. EQUIPPED WITH ELECTRON CAPTURE DETECTOR. REQ'D BY: NWQL, BURLINGTON, MAY 1988.
2011	CAPILLARY METHOD. WATER SAMPLE IS ACIDIFIED AND EXTRACTED USING LARGE VOLUME EXTRACTOR, SUBSEQUENTLY CONCENTRATED TO DESIRED VOLUME AND ANALYSED BY GC/MS SYSTEM. REQU'D BY: NWQL, BURLINGTON, MAY 1988.
2015	CAPILLARY GC METHOD. WATER SAMPLE IS EXTRACTED BY LARGE VOLUME EXTRACT SUBSEQUENTLY CONCENTRATED, CLEANED AND FRACTIONATED ON SILICA GEL COLUMN. TWO FRACTIONS A AND B ARE COLLECTED WHICH ARE CONCENTRATED TO DESIRED FINAL VOLUMES, RECOMBINED AND THEN ANALYSED BY GC/MSD SYSTEM. REQ'D BY: NWQL, BURLINGTON, MAY 1988.
2040	COLUMN/ GAS-LIQUID CHROMATOGRAPHY. THE SAMPLE IS EXTRACTED WITH DICHLOROMETHANE (METHYLNE CHLORIDE). BROMOXYNIL RESIDUES ARE DERIVATIZED TO THE CORRESPONDING PENTA-FLUOROBENZYL, ESTER, AND CLEAN-UP AND FRACTIONATION IS ACHIEVED ON A DEACTIVATED SILICA GEL COLUMN. ELECTRON CAPTURE GLC IS EMPLOYED TO QUANTIFY BROMOXYNIL RESIDUES. REQ'D BY: NWQL, BURLINGTON, MAY 1988.
2041	CAPILLARY GC METHOD. TO SEDIMENT EXTRACT A KNOWN QUANTITY OF OCTACHLORONAPHOTHALENE IS ADDED TO FRACTIONS A AND B PRIOR TO INJETION ON GC EQUIPPED ECD. REQ'D BY: NWQL, BURLINGTON, MAY 1988.
2043	CAPILLARY GC METHOD. FINAL EXTRACT IS SPIKED WITH INTERNAL STANDARD AND THEN ANALYSED BY GC-ECD. REQ'D BY: NWQL, BURLINGTON, MAY 1988.
2045	CAPILLARY GC-MS METHOD. SEDIMENT SAMPLE IS EXTRACTED BY 1:1 MIXTURE OF HEXANE: ACETONE USING SONIFIER. SUBSEQUENTLY, THE EXTRACT IS CONCENTRATED TO DESIRED VOLUME, AND ANALYSED BY GC-MS SYSTEM. REQ'D BY: NWQL, BURLINGTON,MAY 1988.
2055	CAPILLARY GC-MS METHOD. SEDIMENT SAMPLE IS ACIDIFIED WITH 50 PERCENT SULPHURIC ACID TO A PH OF 2, AND THEN EXTRACTED BY A 1:1 MIXTURE OF HEXANE ACETONE USING SONIFIER. EXTRACT IS CONCENTRATED TO DESIRED VOLUME AND ANALYSED BY GC-MS. REQ'D BY: NWQL, BURLINGTON, MAY 1988.
2059	CAPILLARY GC METHOD. TEN GRAMS OF SEDIMENT SAMPLE ARE SPIKED WITH SURROGATE MIXTURE AT DIFFERENT STEPS; SEDIMENT IS EXTRACTED WITH 1:1 MIXTURE OF HEXANE : ACETONE, AND SUBSEQUENTLY CONCENTRATED. CLEANED AND FRACTIONATED ON SILIC GEL COLUMN. TWO FRACTIONS A AND B ARE COLLECTED, WHICH ARE CONCENTRATED TO DESIRED VOLUME,AND ANALYSED BY GC-ED. REQ'D BY: NWQL, BURLINGTON, MAY 1988.
2065	CAPILLARY GC METHOD. SEDIMENT SAMPLE IS EXTRACTED WITH ACETONE: HEXANE 1:1 MIXTURE USING SONIFIER, SUBSEQUENTLY CONCENTRATED AND CLEANED UP ON SILICA GEL COLUMN. ONE FRACTION IS COLLECTED WHICH IS CONCENTRATED TO DESIRED VOLUME, THEN INJECTED ON GC/MSD SYSTEM. REQ'D BY: NWQL, BURLINGTON, MAY 1988.
2081	CAPILLARY GC METHOD. SEDIMENT IS EXTRACTED BY HEXANE USING SONIFIER, SUBSEQUENTLY CONCENTRATED AND A CLEAN-UP DONE ON ALUMINA COLUMN. ONE FRACTION IS COLLECTED AND IS CONCENTRATED TO DESIRED VOLUME AND THEN ANALYSED BY GC/MSD. REQ'D BY: NWQL, BURLINGTON, MAY 1988.
2082	CAPILLARY GC METHOD. SEDIMENT IS EXTRACTED BY HEXANE USING SONIFIER, SUBSEQUENTLY CONCENTRATED AND A CLEAN-UP DONE ON ALUMINA COLUMN. ONE FRACTION IS COLLECTED AND IS CONCENTRATED TO DESIRED VOLUME AND THEN ANALYSED BY GC/MSD. REQ'D BY: NWQL, BURLINGTON, MAY 1988.
2083	CAPILLARY GC/MSD METHOD. SEDIMENT SAMPLE IS ACIDIFIED TO ADJUST PH TO ABOUT 2 AND THEN EXTRACTED BY SONHLET EXTRACTION USING 3:2 ACETONE-HEXANE MIXTURE, BACK EXTRACTED BY 2 PERCENT POTASSIUM CARBONATE AND DERIVATIZED. THE EXTRACT IS CONCENTRATED AND CLEAN-UP DONE ON SEMI-MICRO SILICA GEL COLUMN BY COLLECTING THE DESIRED FRACTION WHICH

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METHOD CODE	DESCRIPTION
2083	IS ANALYSED BY GC/MSD SYSTEM. REQ'D BY: NWQL, BURLINGTON, MAY 1988.
2104	CAPILLARY GC METHOD. BIOTA SAMPLE IS EXTRACTED WITH METHYLE- NE CHLORIDE USING POLYTRON. EXTRACT IS CONCENTRATED, PRE-CLEANED ON GEL PERMEATION COLUMN, CONCENTRATED AGAIN AND FRACTIONATED ON SILICA GEL COLUMN. TWO FRACTIONS A AND B COLLECTED ARE CONCENTRATED TO DESIRED VOLUMES AND THEN INJECTED ON GC EQUIPPED WITH ELECTRON CAPTURE DETECTOR. REQ'D BY: NWQL, BURLINGTON, MAY 1988.
2131	CAPILLARY GC METHOD, BIOTA SAMPLE IS EXTRACTED WITH DICHLOROMETHANE USING POLYTRON, CONCENTRATED AND CLEANED ON GEL PERMEATION COLUMN. ONE FRACTION IS COLLECTED AND CONCENTRATED TO DESIRED VOLUME AND ANALYSED BY GC/MSD SYSTEM DETECTION LIMIT IS 10.0 NG/G, REQ"D BY WQNL, BURLINGTON, MAY 1988.
2147	SEDIMENT SAMPLE IS EXTRACTED BY 1:1 MIXTURE OF ACETONE/ HEXANE USING SONIFIERS, SUBSEQUENTLY CONCENTRATED AND CLEANED UP ON SILICA GEL COLUMN. TWO FRACTIONS A AND B ARE COLLECTED CONCENTRATED TO DESIRED VOLUMES AND ANALYSED ON G.C. REQ'D BY: NWQL, AUGUST 1988.
2149	A KNOWN QUANTITY OF SEDIMENT SAMPLE IS EXTRACTED WITH ACETONE:HEXANE (1:1) MIXTURE USING SONICATOR. EXTRACT IS SUBSEQUENTLY CONCENTRATED, CLEANED AND FRACTIONATED BY SILICA GEL COLUMN. FRACTIONS A AND B ARE CONCENTRATED TO DESIRED VOLUMES AND ANALYSED BY GAS CHROMATOGRAPH EQUIPPED WITH ELECTRON CAPTURE DETECTOR. REQ'D BY: NWQL, AUGUST 15 1988.
2176	DEPTH OF WATER AT TIME OF SAMPLING MEASURED IN METRES. (97002F): IS A NAQUADAT STATION PARAMETER (C10).
2178	DISTANCE MEASURED IN MILES TO THE NEAREST 1/10 MILE BETWEEN A REFERENCE STATION AND ALL DOWNSTREAM STATIONS ON THAT RIVER. (97011F): IS A NAQUADAT STATION PARAMETER.
2180	DISTANCE MEASURED FROM WATER LEVEL TO TOP OF CASING IN METRES USING A TAPE DROP. REQ'D BY: WQB ATLANTIC REGION, OCT. 1979.
2181	ESTIMATED WIND VELOCITY MEASURED IN KM/HR. REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
2182	AIR TEMPERATURE REPORTED AS DEGREES CELSIUS. REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
2183	SNOW TEMPERATURE REPORTED IN DEGREES CELSIUS. REQ'D BY: WQB, OTTAWA, MARCH 1980.
2184	PERTAINS TO THE PHYSICAL DESCRIPTION OF THE SAMPLE. A VISUAL ESTIMATE OF THE DEGREE OF INTENSITY AND COLOUR IS INDICATED BY THE APPROPRIATE CODE. (97071): PERTAINING TO THE PHYSICAL DESCRIPTION OF THE EFFLUENT, OR WATER BODY. REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
2186	NUMERICAL CODE 0- UNSPECIFIED 5- RED 1- BROWN 6- ORANGE 2- GREY 7- BUFF 3- BLACK 8- PURPLE 4- GREEN 9- YELLOW
2187	NUMERICAL CODE 0- UNSPECIFIED 5- GREYISH 1- LIGHT 6- GREENISH 2- MEDIUM 7- REDDISH 3- DARK 8- PURPLISH 4- BROWNISH 9- YELLOWISH
2188	PERTAINS TO THE PHYSICAL DESCRIPTION OF THE SAMPLE. A VISUAL ESTIMATE OF THE DEGREE OF TURBIDITY AND MATTER IS INDICATED BY THE APPROPRIATE CODE. (97081): PERTAINING TO THE PHYSICAL DESCRIPTION OF THE EFFLUENT, OR WATER BODY. REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.

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METHOD CODE	DESCRIPTION
2190	PERTAINS TO THE PHYSICAL DESCRIPTION OF THE SAMPLE. AN OBSERVATION IS INDICATED BY THE APPROPRIATE CODE. (97091): PERTAINING TO THE PHYSICAL DESCRIPTION OF THE EFFLUENT, OR WATER BODY. REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
2192	INSTANEOUS DISCHARGE MEASURED AT OR NEAR THE SAMPLING SITE. THE ESTIMATE MAY BE MADE BY WATER SURVEY OF CANADA, WATER RESOURCES, DINA, WATER QUALITY BRANCH OR OTHER AGENCIES. REQ'D BY: W.Q.B. MONCTON, MAY 1979.
2193	INSTANEOUS DISCHARGE MEASURED AT OR NEAR THE SAMPLING SITE. THE ESTIMATE MAY BE MADE BY WATER SURVEY OF CANADA, WATER RESOURCES, DINA, WATER QUALITY BRANCH OR OTHER AGENCIES. (97164): WITH "ONTARIO MINISTRY OF THE ENVIRONMENT DAILY DISCHARGE". REQ'D BY: IJC, PLUARG, TASK 'C', AGRICULTIRAL WATERSHEDS STUDY.
2194	THIS VALUE IS OBTAINED FROM THE FILES OF WATER SURVEY OF CANADA FOR THE CORRESPONDING STATION NUMBER. (97166): VALUES FROM THE ONTARIO MINISTRY OF THE ENVIRONMENT, EXCEPT WHERE THERE IS A WATER SURVEY OF CANADA STATION. REQ'D BY:IJC,PLUARG, TASK 'C', AGRICULTURAL WATERSHEDS STUDY.
2196	CODE USED TO DEFINE DRAINAGE CHARACTERISTICS. THE PARAMETER REFERS TO DAILY DISCHARGE DIVIDED BY THE APPROPRIATE WATERSHED AREA. UNITS ARE LITRES/HECTARE/DAY. REQ'D BY: IJC,PLUARG,TASK 'C',AGRICULTURAL WATERSHEDS STUDY.
2198	DAILY DISCHARGE MEASUREMENT AT SAMPLING SITE IN CUBIC METRES PER SECOND. FROM 1980 ONWARDS, THIS IS THE MAIN PARAMETER EXTRACTED FROM THE WATER SURVEY OF CANADA TAPES. REQ'D BY: WQB, OTTAWA, AUG. 1977.
2199	DAILY DISCHARGE MEASUREMENT AT SAMPLING SITE IN CUBIC DECIMETRES PER SECOND. REQ'D BY: WQB, OTTAWA, OCT. 1979.
2200	THE ANNUAL MEAN DISCHARGE AT SAMPLING SITE IN CUBIC METRES PER SECOND. THIS VALUE IS USUALLY OBTAINED FROM WSC AND IS RECORDED AS 97170S ON THE LAST DAY OF THE YEAR. REQ'D BY: WQB, OTTAWA, DEC. 1983.
2201	THE MAXIMUM DAILY MEAN DISCHARGE FOR THE YEAR IN CUBIC METRES PER SECOND. THE SAMPLING DATE IS USED TO INDICATE THE DATE OF MAXIMUM DISCHARGE. REQ'D BY: WQB, OTTAWA, DEC. 1983.
2202	THE MINIMUM DAILY MEAN DISCHARGE FOR THE YEAR IN CUBIC METRES PER SECOND. THE SAMPLING DATE IS USED TO INDICATE THE DATE OF MINIMUM DISCHARGE. REQ'D BY: WQB, OTTAWA, DEC. 1983.
2203	WATER SURVEY OF CANADA MONTHLY MEAN DISCHARGE.
2204	THIS VALUE IS OBTAINED FROM THE FILES OF WATER SURVEY OF CANADA FOR THE CORRESPONDING STATION NUMBER.
2205	MONTHLY MEAN DISCHARGE MEASUREMENT FROM THE FILES OF WATER SURVEY OF CANADA FOR THE CORRESPONDING STATION NUMBER. REQ'D BY: WQB OTTAWA, APRIL 1980.
2206	DISCHARGE WILL BE DETERMINED USING WEIRS AND WATER STAGE RECORDERS. REQUIRED BY WQB, ATLANTIC REGION, APRIL 1987.
2207	MEASURED FROM LEFT BANK OF RIVER OR STREAM FACING DOWNSTREAM AND MEASURED IN FEET.
2208	MEASURED FROM LEFT BANK OF RIVER OR STREAM FACING DOWNSTREAM AND MEASURED IN METRES.
2209	MEASURED FROM LEFT BANK OF RIVER OR STREAM FACING DOWNSTREAM WITH DISTANCE ESTIMATED AS A PERCENTAGE OF TOTAL WIDTH. REQ'D BY: WQB, PACIFIC AND YUKON REGION, APRIL 1985.

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METHOD CODE	DESCRIPTION
2210	DISTANCE OF SAMPLING LOCATION FROM THE RIGHT BANK OF RIVER OR STREAM, FACING DOWNSTREAM AND MEASURED IN FEET.
2211	DISTANCE OF SAMPLING LOCATION FROM THE RIGHT BANK OF RIVER OR STREAM, FACING DOWNSTREAM AND MEASURED IN METRES.
2212	USED TO PROVIDE DETAILS OF SEDIMENT SAMPLING ACCORDINGLY TO THE FOLLOWING CODE 1 - SURFACE 2 - VERTICAL SECTION 3 - COMPOSITE 4 - CORE REQ'D BY: WQB, ATLANTIC REGION, FEB. 1982.
2213	USED TO INDICATE THE DEPTH OF A SAMPLE FROM THE SEDIMENT SURFACE LAYER. (EG 5 CM WOULD IMPLY A SAMPLE 5 CM DEEP IN THE SEDIMENT. THIS CODE MAY BE USED IN CONJUNCTION WITH CODE 97240. REQ'D BY: WQB, ATLANTIC REGION, FEB. 1982.
2214	MEASURED VERTICALLY IN M FROM SURFACE OF RIVER, LAKE, ETC. SAMPLES WITH A NEGATIVE DEPTH ARE ASSUMED TO BE TAKEN FROM THE BOTTOM. (-1 IS USED IN PLACE OF THE WORD 'BOTTOM'.) ANY SAMPLES WITHOUT A DEPTH PARAMETER ARE ASSUMED TO BE TAKEN FROM THE SURFACE.
2215	MEASURED VERTICALLY IN FT FROM SURFACE OF RIVER, LAKE, ETC.
2216	MEASURED VERTICALLY IN M FROM BOTTOM OF RIVER, LAKE, ETC.
2217	THE SAMPLING DEPTH IS MEASURED VERTICALLY FROM THE SURFACE OF THE RIVER, LAKE, ETC. AND EXPRESSED AS THE PERCENT RATIO OF SAMPLING DEPTH/WATER DEPTH. REQ'D BY: WQB, OTTAWA DEC. 1980.
2218	THIS PARAMETER IS USED TO INDICATE THE THERMAL LAYER IN A LAKE ACCORDING TO THE FOLLOWING CODE 1 - EPILIMNION 2 - METALIMNION 3 - HYPOLIMNION 4 - WHOLE LAKE 5 - DISCRETE LAYER 6 - SINGLE DEPTH REQ'D BY: ECD (TURKEY LAKES PROJECT), NWRI, OCT. 1981.
2219	THE DEPTH IN METRES (MEASURED VERTICALLY FROM THE LAKE SURFACE) TO THE TOP OF THE SAMPLING LAYER DEFINED BY THE LAKE LAYER CODE 97270. REQ'D BY: ECD (TURKEY LAKES PROJECT), NWRI, OCT. 1981.
2220	THE DEPTH IN METRES FROM THE LAKE SURFACE TO THE BOTTOM OF THE SAMPLING LAYER. REQ'D BY: ECD (TURKEY LAKES PROJECT), NWRI, OCT. 1981.
2221	SIEVE AND SEDIMENT ANALYSIS. SAMPLES ARE SPLIT AND SIEVED OR DISPERSED IN A CALGON SUSPENSION AND ANALYZED WITH A SEDIGRAPH. GRAVEL IS GT 2.0 MM IN DIAMETER. REQD BY: WQB, BURLINGTON, JUNE, 1983.
2222	SIEVE AND SEDIMENT ANALYSIS. SAMPLES ARE SPLIT AND SIEVED OR DISPERSED IN A CALGON SUSPENSION AND ANALYZED WITH A SEDIGRAPH. SAND IS BETWEEN 2.00 AND 0.0625 MM IN DIAMETER. REQD BY: WQB, BURLINGTON, JUNE, 1983.
2223	SIEVE AND SEDIMENT ANALYSIS. SAMPLES ARE SPLIT AND SIEVED OR DISPERSED IN A CALGON SUSPENSION AND ANALYZED WITH A SEDIGRAPH. SILT IS BETWEEN 0.0625 AND 0.0039 MM IN DIAMETER. REQ'D BY: WQB, BURLINGTON, JUNE, 1983.
2224	SIEVE AND SEDIMENT ANALYSIS. SAMPLES ARE SPLIT AND SIEVED OR DISPERSED IN A CALGON SUSPENSION AND ANALYZED WITH A SEDIGRAPH. CLAY IS LT 0.0039 MM IN DIAMETER. REQD BY: WQB, BURLINGTON, JUNE, 1983.
2225	AN ALIQUOT OF THE TOTAL WET SEDIMENT SAMPLE, WHICH HAS BEEN COLLECTED USING A WESTFALIA CONTINUOUS FLOW CENTRIFUGE AT 6 L/MIN, IS DRIED TO DETERMINE PERCENT MOISTURE. A CORRECTION FACTOR IS THEN APPLIED TO THE TOTAL SAMPLE (WET

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METHOD CODE	DESCRIPTION
2225	WEIGHT) COLLECTED TO CALCULATE THE TOTAL SAMPLE DRY WEIGHT. THE TOTAL SAMPLE DRY WEIGHT IS THEN DIVIDED BY THE NUMBER OF LITERS CENTRIFUGED TO COLLECT THE SAMPLE. REQ'D BY: WQB ONTARIO REGION, AUGUST 17 1988.
2226	PERCENT OF SURFACE COVERED BY ICE AT SAMPLING SITE.
2227	DEPTH OF ICE AT TIME OF SAMPLING MEASURED IN METRES. REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
2228	PERCENT OF SURFACE COVERED BY SNOW AT SAMPLING SITE.
2229	DEPTH IN CENTIMETRES MEASURED VERTICALLY UPWARDS FROM THE SNOW/SOIL INTERFACE TO THE TOP OF A DEFINED SAMPLING LAYER IN THE SNOWPACK. REQ'D BY: ECD, TURKEY LAKES, NWRI, FEB. 1984.
2230	DEPTH IN CENTIMETRES MEASURED VERTICALLY UPWARDS FROM THE SNOW/SOIL INTERFACE TO THE BOTTOM OF A DEFINED SAMPLING LAYER IN THE SNOW PACK. REQ'D BY: ECD, TURKEY LAKES, NWRI, FEB. 1984.
2231	ESTIMATED SNOW DEPTH REPORTED IN METRES. REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
2232	PHYSICAL DESCRIPTION OF THE SAMPLE. (EXAMPLE - SNOWPACK, FRESH, GRANULAR, FIRM, ETC.) REQ'D BY: WQB, OTTAWA, MARCH 1980.
2233	THE DENISITY OF A SNOWPACK SAMPLE. REQ'D BY: ECD, TURKEY LAKES, NWRI, FEB. 1984.
2234	ESTIMATED PER CENT OF CLOUD COVER. REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
2235	THE RESULTANT OF INCOMING AND REFLECTED SHORTNAVE RADIATION AND OUTGOING LONGWAVE RADIATION RECEIVED THROUGH A FLAT HORIZONTALLY-MOUNTED THERMOPILE. INSTRUMENTATION CSIRO NET PYRRODIOMETER. REF: ATMOSPHERIC ENVIRONMENT SERVICE DOWNSVIEW, ONTARIO. REQ'D BY: ALBERTA, ENVIRONMENT, FEB, 1981.
2236	PARAMETER REQUIRED FOR PRECIPITATION CHEMISTRY INFORMATION PRECIPITATION GENERALLY PROVIDED BY AES OR MEASURED BY ON-SITE INSTRUMENTATION. REQ'D BY: DATA MANAGEMENT SECTION, CCIW, OCT. 1975.
2237	PARAMETER REQUIRED FOR PRECIPITATION CHEMISTRY INFORMATION VOLUME OF SAMPLE RETAINED IN SAMPLE COLLECTOR. REQ'D BY: DATA MANAGEMENT SECTION, CCIW, OCT. 1975.
2238	PARAMETER REQUIRED FOR PRECIPITATION CHEMISTRY INFORMATION NUMBER OF DAYS SAMPLER WAS EXPOSED. REQ'D BY: DATA MANAGEMENT SECTION, CCIW, OCT. 1975.
2239	CONSIDERED AS A SINGE COMPOSITE SAMPLE. USED TO INDICATE A PERIOD FOR WHICH THE SAMPLE COLLECTED IS THE SAMPLING DATE IS CONSIDERED TO BE THE START OF THE COMPOSITE PERIOD. NOV. 1975.
2240	USED TO INDICATE A COMPOSITE SAMPLE HAS BEEN TAKEN ACCORDING TO THE APPROPRIATE CODE. 1 - MONTHLY SAMPLE.
2241	PARAMETER REQUIRED FOR PRECIPITATION CHEMISTRY INFORMATION REQ'D BY: DATA MANAGEMENT SECTION, CCIW, OCT. 75.
2242	THE PERCENTAGE CATCH = MEASURED VOLUME * 100 /(PRECIPITATION * CROSS-SECTIONAL AREA) REQ'D BY: WQB OTTAWA, AUG. 1977.
2243	MINUTES OF EXPOSURE FOR SAMPLE COLLECTION. REQ'D BY: WQB OTTAWA, AUG. 1977.
2244	ESTIMATED RAINFALL REPORT IN MILLIMETERS. REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
2245	DAY, MONTH AND YEAR THE RAIN STARTED.

ENVIRODAT/NAQUADAT METHOD CODES AND DESCRIPTIONS

METHOD CODE	DESCRIPTION
2245	REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
2246	DAY, MONTH AND YEAR THE RAIN ENDED. THE DATE IS WRITTEN IN 6 DIGITS, E.G. FEBRUARY 15TH, 1984 WOULD BE 150284. REQ'D BY: AES, DOWNSVIEW, FEB. 1984.
2247	TIME OF DAY RAIN ENDED. THIS CODE IS USED WITH 97362 TO RECORD THE ACTUAL TIME. A 2-DIGIT HOUR OR 4-DIGIT HOUR AND MINUTE CAN BE ENTERED. REQ'D BY: AES, DOWNSVIEW, FEB. 1984.
2248	THIS PARAMETER IS USED TO INDICATE THE FORM OF A PRECIP-ITATION SAMPLE ACCORDING TO THE FOLLOWING CODE 0 - RAIN 1 - SNOW 2 - PRECIPATED ICE/SLEET 3 - MIXED PRECIPATION/SNOW AND RAIN 9 - UNKNOWN REQ'D BY: AES, DOWNSVIEW, AUG. 1983.
2249	THE TYPE OF SAMPLER IS IDENTIFIED ACCORDING TO THE FOLLOWING CODE 1 - PLASTIC RAIN GUAGE 2 - NIPHER SNOW GUAGE REQ'D BY: AES, DOWNSVIEW, FEB. 1984.
2250	THE DATE THE SAMPLE IS RECEIVED BY THE LABORATORY. THE DATE IS WRITTEN IN 6 DIGITS, E.G. FEBRUARY 15, 1984 WOULD BE WRITTEN 150284. REQ'D BY: AES, DOWNSVIEW, FEB. 1984.
2251	THE WEIGHT OF SAMPLE RECEIVED AT THE LABORATORY. REQ'D BY: AES, DOWNSVIEW, FEB. 1984.
2252	THE TEMPERATURE OF THE SAMPLE WHEN RECEIVED BY THE LAB-ORATORY. REQ'D BY: AES, DOWNSVIEW, FEB. 1984.
2253	THE WEIGHT OF THE EMPTY CONTAINER RECEIVED AT LABORATORY. REQ'D BY: AES, DOWNSVIEW, MAY 1985.
2254	10 GM OF WET SEDIMENT ARE WEIGHED IN A PRE-WEIGHED ALUMINUM WEIGHING DISH. SAMPLE IS DRIED IN AN OVEN AT 130 C TO A CONSTANT WEIGHT. MOISTURE CONTENT IS DETERMINED BY DIFFERENCE IN WEIGHTS.
2255	THE DISCHARGE MEASURED AT THE WATER SURVEY OF CANADA (WSC) STATION IS ASSUMED TO REPRESENT THE DISCHARGE AT THE WATER QUALITY STATION. WSC STATION IS IDENTIFIED BY A 7-DIGITS CODE. THE DIGITS 1-4, REPRESENTING THE BASIN AND THE SUB-BASIN, ARE IDENTICAL TO DIGITS 5-8 OF THE WATER QUALITY STATION NO. THUS ONLY THE LAST THREE DIGITS OF WSC STATION NO. ARE STORED AS A NAQUADAT PARAMETER VALUE. 97900S IS A NAQUADAT STATION PARAMETER (C12).
2256	THIS STATION PARAMETER IS USED TO CROSS-REFERENCE STATIONS IDENTIFIED ELSEWHERE BY MEANS OF A DIFFERENT NUMBERING SCHEME. REQ'D BY: WATER QUALITY BRANCH, OTTAWA, AUG. 1980. 97910S IS A NAQUADAT STATION PARAMETER (C14).
2257	WATERSHED AREA AS ESTIMATED FROM WSC GUAGE INDEX OR FROM PLANIMETRY OF NTS MAP (PREFERABLY 1:50000 SCALE). REQ'D BY: WQB OTTAWA, AUG. 1977.
2258	U-TUBE BAROMETER.
2259	ESTIMATED PRESSURE REPORTED IN KILOPASCALS. REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
2260	THE METRIC UNIT FOR RADIOACTIVITY IS THE BECQUEREL. REQ'D BY: WQB, CALGARY, FEBRUARY 1976. NOTE: VALUES PREVIOUSLY STORED AS PCI/L WERE ALL CONVERTED TO BQ/L, AUGUST, 1979, USING THE RELATION 1 PICOCURIE = 0.037 BECQUEREL.
2261	THE METRIC UNIT FOR RADIOACTIVITY IS THE BECQUEREL.

ENVIRODAT/NAQUADAT METHOD CODES AND DESCRIPTIONS

METHOD CODE	DESCRIPTION
2261	REQ'D BY: WQB, CALGARY, FEBRUARY 1976. NOTE: VALUES PREVIOUSLY STORED AS PCI/L WERE ALL CONVERTED TO BQ/L, AUGUST, 1979, USING THE RELATION 1 PICOCURIE = 0.037 BECQUEREL
2262	THE METHOD BY WHICH THE SAMPLE IS COLLECTED ACCORDING TO THE CODES. REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
2263	CROSS-SECTIONAL AREA OF SAMPLER (ESPECIALLY PRECIPITATION COLLECTORS). REQ'D BY: WQB OTTAWA, AUG. 1977.
2264	THE SAMPLE CONTAINER AND PRESERVATIVE USED TO SUBMIT THE SAMPLE ACCORDING TO THE FOLLOWING CODES. REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
2265	HEIGHT OF SAMPLER ABOVE SURFACE OF THE GROUND. (ESPECIALLY PRECIPITATION COLLECTORS). REQ'D BY: WQB OTTAWA, AUG. 1977.
2266	PERTAINS TO THE PHYSICAL DESCRIPTION OF THE SAMPLE. USED TO DENOTE ALGAE COLONIES OR COLOUR JUDJED TO BE CAUSED BY ALGAE THAT IS IN THE WATER RATHER THAN AN ALGAE SCUM. THE DEGREE OF ALGAE REPORTED ACCORDING TO THE APPROPRIATE CODES. (98031):PERTAINING TO THE PHYSICAL DESCRIPTION OF THE EFFLUENT, OR WATER BODY. REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
2268	USED TO DENOTE ATTACHED WEEDS IN THE EFFLUENT OR WATER BODY AT THE TIME OF SAMPLING. THE AMOUNT OF ALGEA REPORTED ACCORDING TO THE APPROPRIATE CODE. REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
2269	PERTAINS TO THE PHYSICAL DESCRIPTION OF THE SAMPLE. USED TO DENOTE THE DEGREE AND TYPE OF FLOATING MATERIEL ACCORDING TO THE APPROPRIATE CODES. (98041): PERTAINING TO THE PHYSICAL DESCRIPTION OF THE EFFLUENT, OR WATER BODY. REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
2271	USED TO DENOTE THE LOCATION OF THE WEEDS ACCORDING TO THE APPROPRIATE CODE. REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
2272	AN OBSERVATION OF THE EFFLUENT OR WATER BODY BASED ON THE APPROPRIATE CODE REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
2273	USED TO DESCRIBE AMBIENT CONDITIONS AT TIME OF SAMPLING. REQ'D BY: GLOWDAT, OCT 1978.
2274	NUMERICAL CODE 0- UNSPECIFIED 5-BENTHOS CORER 1- SHIPEK 6-ALPINE PISTON CORER 2- BOX CORER 7-ALPINE GRAVITY CORER 3- TORONTO GRAB 8-PHLEGER CORER 4- BEACH CORER 9- SEE NARRATIVE
2275	THICKNESS OF SEDIMENT SAMPLE OR CORE LENGTH.
2276	NUMERICAL CODE 0- NO 1- YES
2277	NUMERICAL CODE 0- NO 1- YES
2278	SEQUENTIAL NUMBER FOR STRATIGRAPHIC UNITS IN SEDIMENT SAMPLE OR CORE. UPPERMOST UNIT NUMBER IS 1. A 0 ENTRY INDICATES THAT NO UNIT NUMBERS WERE ASSIGNED.
2279	DEPTH OF THE TOP OF THE STRATIGRAPHIC UNIT BELOW THE SAMPLE OR CORE SURFACE
2280	DEPTH OF THE BOTTOM OF THE STRATIGRAPHIC UNIT BELOW THE SAMPLE OR CORE SURFACE.
2281	NUMERICAL CODE

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METHOD CODE	DESCRIPTION
2281	ODOUR OF SEDIMENT SAMPLE UPON COLLECTION. 0-UNSPECIFIED 5-SEWAGE 1-NONE 6-FISHY 2-FETID 7-RESERVED 3-OILY 8-RESERVED 4-H-SULPHIDE 9-SEE NARRATIVE
	CONSISTENCYOF SEDIMENT DESCRIPTIVE CODE
2282	NUMERICAL CODE 0-UNSPECIFIED 5-STIFF 1-OOZE 6-LOOSE(SAND) 2-SOFT 7-PACKED(SAND) 3-MEDIUM FIRM 8-RESERVED 4-FIRM 9-SEE NARRATIVE
2283	NUMERICAL CODE 0-UNSPECIFIED 5-RIPPLE BEDDING 1-MASSIVE 6-VARVED 2-LAMINATED 7-BIOTURBATE 3-CROSS-BEDDED 8-DISTURBED 4-CONTORTED 9-SEE NARRATIVE
2284	NUMERICAL CODE 0- UNSPECIFIED 5- SAND 1- CLAY 6- GRAVEL 2- SILT 7- COBBLES, BOULDERS 3- FINE-MEDIUM SAND 8- MUD 4- MEDIUM-COARSE SAND 9- SEE NARRATIVE
2285	NUMERICAL CODE 0- UNSPECIFIED 5- MUDDY 1- CLAYEY 6- SHELLY 2- SILTY 7- RESERVED 3- SANDY 8- RESERVED 4- PEBBLY 9- SEE NARRATIVE
2286	NUMERICAL CODE 0- UNSPECIFIED 5- SILSTONE 1- NONE 6- SANDSTONE 2- MIXED 7- SHIELD 3- CARBONATE 8- TILL 4- SHALE 9- SEE NARRATIVE
2287	OBSERVED OR INFERED EVIDENCE OF BEDROCK OR GLACIAL SEDIMENT UNDERLYING MODERN SEDIMENT. 0- UNSPECIFIED 6- GLACIAL SEDIMENT 1- BEDROCK OBSERVED INFERRED (SEE 2- BEDROCK INFERRED (ROCK CHIPS) NARRATIVE) 3- BEDROCK INFERRED (SEE NARRATIVE) 7- RESERVED 4- GLACIAL SEDIMENT OBSERVED 8- RESERVED 5- GLACIAL SEDIMENT INFERRED (FRAGMENTS) 9- SEE NARRATIVE
2288	DEPTH OF THE TOP OF THE SUBSAMPLE USED FOR PHYSICAL OR CHEMICAL ANALYSIS BELOW THE SAMPLE OR CODE SURFACE.
2289	DEPTH OF THE BOTTOM OF THE SUBSAMPLE USED FOR PHYSICAL OR CHEMICAL ANALYSIS BELOW THE SAMPLE OR CODE SURFACE.
2290	MEAN SIZE OF SEDIMENT GRAIN-SIZE DISTRIBUTION DETERMINED BY THE METHOD OF MOMENTS ON SIZE EXPRESSED IN PHI UNITS.
2291	SORTIN OF STANDARD DEVIATION OF SEDIMENT GRAIN-SIZE DISTRIBUTION DETERMINED BY THE METHOD OF MOMENTS ON SIZE EXPRESSED IN PHI UNITS.
2292	SKEWNESS OF SEDIMENT GRAIN-SIZE DISTRIBUTION DETERMINED BY THE METHOD OF MOMENTS ON SIZE EXPRESSED IN PHI UNITS.
2293	KURTOSIS OR PEAKEDNESS OF SEDIMENT GRAIN-SIZE DISTRIBUTION DETERMINED BY THE METHOD OF MOMENTS ON SIZE EXPRESSED IN PHI UNITS.
2294	REQ'D BY: GLBL, DEPT OF FISHERIES AND OCEANS, JULY 1983.
2295	REQ'D BY: GLBL, DEPT OF FISHERIES AND OCEANS, JULY 1983.
2296	AGE IS DETERMINED BY COUNTING GROWTH RINGS IN APPROPRIATE HARD TISSUES SUCH AS SCALE, BONE, ETC.

METHOD CODE	DESCRIPTION
2296	REQ'D BY: GLBL, DEPT OF FISHERIES AND OCEANS, JULY 1983.
2297	WEIGHT OF SAMPLE SUBMITTED FOR TRACE METAL ANALYSIS. REQ'D BY: GLBL, DEPT OF FISHERIES AND OCEANS, JULY 1983.
2298	WEIGHT OF SAMPLE SUBMITTED FOR PESTICIDE AND PCB ANALYSIS. REQ'D BY: GLBL, DEPT OF FISHERIES AND OCEANS, JULY 1983.
2299	10 G OF TISSUE HOMOGENATE IS SUBJECTED TO 7 HR SOXHLET EXTRACTION WITH HEXANE. THE PERCENT LIPID (FAT) IS DETERMINED GRAVIMETRICALLY. REQ'D BY: GLBL, DEPT OF FISHERIES AND OCEANS, JULY 1983.
2300	INTERFERENCES: 1. OTHER NITROGEN-CONTAINING COMPOUNDS MAY INTERFERE. 2. ALL SOLVENTS MUST BE OF PESTICIDE GRADE, I.E., DISTILLED IN IN GLASS. ALL CHEMICALS MUST BE OF HIGHEST PURITY AND, IF APPLICABLE, SHOULD BE PREHEATED TO ELIMINATE ARTIFACTS OR INTERFERENCES. PRINCIPLE OF METHOD: THIS METHOD IS APPLICABLE TO DRINKING AND SURFACE WATERS NOT REQUIRING CLEANUP PROCEDURES. A ONE-LITRE SAMPLE OF WATER IS EXTRACTED WITH DICHLOROMETHANE USING SEPARATORY FUNNEL TECHNIQUES. THE EXTRACT IS DRIED AND EXCHANGED INTO ETHYL ACETATE DURING CONCENTRATION. THE SAMPLE IS THEN IDENTIFIED AND QUANTIFIED BY GAS LIQUID CHROMATOGRAPHY (GLC), USING EITHER NITROGEN/PHOSPHORUS DETECTOR (NPD) OR HALL ELECTROLYTIC CONDUCTIVITY DETECTOR IN THE NITROGEN MODE (HECD/N). THIS METHOD IS RESTRICTED TO USE BY OR UNDER THE SUPERVISION OF ANALYSTS EXPERIENCED IN THE USE OF GAS CHROMATOGRAPHY AND IN THE INTERPRETATION OF CHROMATOGRAMS. EACH ANALYST MUST DEMONSTRATE THE ABILITY TO GENERATE ACCEPTABLE RESULTS WITH THIS METHOD.
2301	INTERFERENCES: 1. ALL SOLVENTS MUST BE OF PESTICIDE GRADE, I.E., DISTILLED IN GLASS. ALL CHEMICALS MUST BE OF HIGHEST PURITY AND , IF APPLICABLE, SHOULD BE PREHEATED TO ELIMINATE ARTIFACTS OR INTERFERENCES. 2. OTHER PESTICIDE RESIDUES AND THEIR DEGRADATION PRODUCTS/ METABOLITES AS WELL AS MANY ORGANIC COMPOUNDS OTHER THAN THE ORGANOCHLORINATED PESTICIDES (OC'S) LISTED ABOVE MANY INTERFERE IN THE ANALYSIS. AS MANY OF THESE INTERFERENCES CANNOT BE SEPARATED FROM THE OC'S AND POLYCHLORINATED BIPHENYLS (PCB'S) IN QUESTION, CONFIRMATION OF THE OC'S IDENTITY IS REQUIRED. 3. DIFICULTIES WITH OC ANALYSIS CAN BE ENCOUNTERED WHEN PCB CONCENTRATIONS IN THE SAMPLE ARE MUCH GREATER THAN OC CONCENTRATIONS. CONVERSELY, DIFFICULTIES WITH PCB ANALYSIS CAN BE ENCOUNTERD WHEN OC CONCENTRATIONS IN THE SAMPLE ARE MUCH GREATER THAN PCB CONCENTRATIONS. 4. FLORISIL CLEANUP PROCEDURES ARE USED TO EXTEND THE SENSITIVITY OF THE METHOD BY MINIMIZING OR ELIMINATING INTERFERENCES THAT MASK OR OTHERWISE DISFIGURE THE CHROMATOGRAPHIC RESPONSE TO OC'S AND PCB'S. SEE PROCEDURE STEP III. THE FLORISIL COLUMN ALLOWS FOR A SELECT FRACTIONATION OF COMPOUNDS AND WILL ELEMINATE POLAR MATERIALS. PRINCIPLE OF METHOD: A ONE-LITRE SAMPLE OF WATER IS EXTRACTED WITH DICHLOROMETHANE USING SEPARATORY FUNNEL TECHNIQUES. INTERFERENCES ARE REMOVED USING FLORISIL CLEANUP PROCEDURES. THE EXTRACT IS THEN EXCHANGED INTO 2,2,4-TRIMETHYLPENTANE DURING CONCENTRATION. ORGANOCHLORINATED HYDROCARBONS IN THE SAMPLE ARE IDENTIFIED AND QUANTIFIED BY GAS LIQUID CHROMATOGRAPHY (GLC) ON A MEGABORE COLUMN USING ELECTRON CAPTURE 63NI DETECTION (ECD) AND CONFIRMED USING CAPILLIARY CHROMATOGRAPHY OR MASS SELECTIVE DETENTION (MSD) AS REQUIRED. PCB'S IN THE SAMPLE ARE IDENTIFIED AND QUANTIFIED BY GLC ON A PACKED COLUMN USING ECD.
2302	SEDIMENT SAMPLE IS EXTRACTED BY ULTRASONIC EXTRACTION METHOD USING ACETONE-HEXANE (1:1) MIXTURE, WHICH IS FURTHER EXTRACTED WITH DICHLOROMETHANE. THE DICHLOROMETHANE EXTRACT IS CONCENTRATED AND SOLVENT EXCHANGED WITH ISO-OCTANE, WHICH IS CLEANED AND FRACTIONATED ON SILICA GEL COLUMN. FRACTIONS FROM SILICA GEL ARE ANALYSED ON GAS CHROMATOGRAPH USING CAPILLARY COLUMNS.
2303	SEDIMENT SAMPLE IS EXTRACTED BY ULTRASONIC EXTRATION METHOD USING ACETONE-HEXANE (1:1) MIXTURE. MIXTURE IS AGAIN EXTRACTED WITH DICHLOROMETHANE IN A SEPARATORY FUNNEL. THE EXTRACT IS CONCENTRATED

METHOD CODE	DESCRIPTION
2303	AND SOLVENT EXCHANGED WITH ISO-OCTANE. THE RAW EXTRACT IN ISO-OCTANE IS ANALYSED BY GC-MS SYSTEM USING SHRADER PROTOCOL.
2304	INTERFERENCES: 1. LARGE FLOATING PARTICLES OR SUBMERGED AGGLOMERATES (NON-HOMOGENEOUS MATERIALS) SHOULD BE EXCLUDED FROM THE TEST SAMPLES. 2. FLOATING OIL AND GREASE, IS PRESENT, SHOULD BE INCLUDED IN THE SAMPLE AND DISPERSED BY A HIGH SPEED BLENDER BEFORE TAKING ALIQUOTS. 3. IF EXCESSIVE RESIDUE IS PRESENT IN THE CASSEROLE, WATER IS TRAPPED AND DRYING TIME MUST BE EXTENDED. PRINCIPLE OF METHOD: TOTAL RESIDUE THE SUM OF THE HOMOGENEOUS SUSPENDED AND DISSOLVED MATERIAL IN THE SAMPLE DRIED TO CONSTANT WEIGHT AT 105 DEG. C IN A PREPARED CASSEROLE. NON-FILTERABLE RESIDUE THE RESIDUE RETAINED BY A PREPARED WHATMAN 934-AH GLASS MICROFIBRE FILTER DRIED TO CONSTANT WEIGHT AT 105 DEG. C. FILTERABLE RESIDUE THE RESIDUE REMAINING IN A PREPARED CASSEROLE AFTER PASSING THE SAMPLE THROUGH WHATMAN GF/C GLASS MICROFIBRE FILTER AND DRYING TO CONSTANT WEIGHT AT 105 DEG. C. FIXED TOTAL RESIDUE THE CASSEROLE WITH RETAINED RESIDUE FROM THE ANALYSIS OF "TOTAL RESIDUE" IGNITED FOR ONE HOUR AT 550 DEG. C. FIXED NON-FILTERABLE RESIDUE THE CRUCIBLE WITH RETAINED RESIDUE FROM THE ANALYSIS OF "NON-FILTERABLE RESIDUE" IGNITED FOR ONE HOUR AT 550 DEG. C. VOLATILE NON-FILTERABLE RESIDUE THE PORTION OF THE "NON-FILTERABLE RESIDUE" DRIVEN OFF BY IGNITION FOR ONE HOUR AT 550 DEG. C. FIXED FILTERABLE RESIDUE THE CASSEROLE WITH RETAINED RESIDUE FROM THE ANALYSIS OF "FILTERABLE RESIDUE" IGNITED FOR ONE HOUR AT 550 DEG. C. NON-SETTLEABLE RESIDUE "NON-FILTERABLE RESIDUE" ANALYSIS ON AN ALIQUOT TAKEN FROM THE CENTRE OF A SHAKEN SAMPLE ALLOWED TO SETTLE FOR ONE HOUR. SETTLEABLE RESIDUE THE MATTER WHICH WILL NOT STAY IN SUSPENSION DURING THE SETTING PERIOD BUT EITHER SETTLES OR FLOATS.
2305	INTERFERENCES: 1. AIR-ACETYLENE OR OTHER HIGH TEMPERATURE FLAMES (2800 DEG. C) CAN CAUSE A POSITIVE IONIZATION INTERFERENCES. THIS MAY BE CORRECTED FOR BY THE ADDITION OF ALKALI METAL IONIZATION SUPPRESSANTS SUCH AS SODIUM CHLORIDE AND CESIUM CHLORIDE. 2. INTERFERENCE BY THE FOLLOWING ELEMENTS HAS BEEN REPORTED WHERE: -THE NA/K RATIO IS 5:1 OR GREATER; -THE CA/K RATIO IS 10:1 OR GREATER; -THE MG/K RATIO IS 100:1 OR GREATER. 3. CONTAMINATION THROUGH STORAGE, AND HANDLING (E.G. PERSPIRATION) OF SAMPLES AND STANDARDS MUST BE ELIMINATED BY USING ACID WASHED POLYETHYLENEWARE AND AVOIDING THE USE OF GLASS. ACID WASHED SAMPLE CUPS MUST BE USED FOR LOW LEVEL (LESS THAN OR EQUAL TO 1 MG/L K) POTASSIUM. PRINCIPLES OF METHOD: AN ACIDIFIED AQUEOUS SOLUTION CONTAINING POTASSIUM IS ASPIRATED INTO AN AIR-ACETYLENE FLAME. POTASSIUM IN THE SAMPLE IS NOT EXCITED, BUT MERELY DISSOCIATED FROM ITS CHEMICAL BONDS AND PLACED INTO UNEXCITED, UN-IONIZED "GROUND" STATE. POTASSIUM IS THEN CAPABLE OF ABSORBING RADIATION FROM THE LIGHT SOURCE. BECAUSE POTASSIUM HAS ITS OWN CHARACTERISTIC ABSORPTION WAVELENGTH, A SOURCE LAMP COMPOSED OF POTASSIUM IS EMPLOYED. THE AMOUNT OF RADIATION ABSORBED IN THE FLAME AT 766.5 NM IS PROPORTIONAL TO THE CONCENTRATION OF POTASSIUM. THE FORM OF POTASSIUM MEASURED (I.E. EXTRACTABLE OR TOTAL) DEPENDS UPON SAMPLE PRE-TREATMENT.
2306	INTERFERENCES: 1. NON-HOMOGENEOUS SAMPLES WILL PRODUCE ERRATIC RESULTS. 2. SALTS IN EXCESS OF 5 PERCENT ACT AS AN INTERFERENCE. SALT CONTENT MAY BE REDUCED BY DILUTION. 3. ALKALI ACTS AS AN INTERFERENCE AND MAY BE CORRECTED BY CHEMICAL NEUTRALIZATION. PRINCIPLES OF METHOD: I. TOTAL CARBON

METHOD CODE DESCRIPTION

2306 THE SAMPLE IS SYRINGE-INJECTED INTO A FLOWING STREAM OF AIR AND SWEPT INTO THE COMBUSTION TUBE WHICH CONTAINS AN OXIDIZING AGENT. THE COMBUSTION TUBE IS THERMOSTATICALLY CONTROLLED AT 950 DEG. C, A TEMPERATURE AT WHICH ORGANIC AND INORGANIC MATTER ARE OXIDIZED, YIELDING CO2 AND STEAM. THE RESULTANT VAPOURS ARE SWEPT OUT OF THE FURNACE CHAMBER BY THE AIR CARRIER GAS WHERE THE STEAM IS CONDENSED AND REMOVED, AND THE CO2 IS MEASURED BY AN INFRARED ANALYZER. THE CONCENTRATION OF CO2 MEASURED IS PROPORTIONAL TO THE TOTAL CARBON CONTENT IN THE SAMPLE.

II. TOTAL INORGANIC CARBON
THE SAMPLE IS SYRINGE-INJECTED INTO A FLOWING STREAM OF AIR AND SWEPT INTO THE COMBUSTION TUBE WHICH CONTAINS QUARTZ CHIPS WETTED WITH 85% PHOSPHORIC ACID. THE COMBUSTION TUBE IS THERMOSTATICALLY CONTROLLED AT 155 DEG. C, A TEMPERATURE AT WHICH ORGANIC MATTER IS NOT OXIDIZED. THE ACID TREATED PACKING CAUSES THE VAPORIZATION OF WATER AND THE RELEASE OF CARBON DIOXIDE FROM INORGANIC CARGONATES AND BICARBONATES. THE RESULTANT VAPOURS ARE SWEPT OUT OF THE FURNACE CHAMBER BY THE AIR CARRIER GAS WHERE THE STEAM IS CONDENSED AND REMOVED, AND THE CO2 IS MEASURED BY AN INFRARED ANALYZER. THE CONCENTRATION OF CO2 MEASURED IS PROPORTIONAL TO THE TOTAL INORGANIC CARBON CONTENT IN THE SAMPLE.

III. TOTAL ORGANIC CARBON
THE TOTAL ORGANIC CARBON CONTENT IN THE SAMPLE IS EQUAL TO THE TOTAL CARBON CONTENT LESS THE TOTAL INORGANIC CARBON CONTENT AND IS DETERMINED BY CALCULATION.

2307 INTERFERENCES:
GASEOUS MOLECULAR SPECIES, SALT PARTICLES OR SMOKE IN THE SAMPLE BEAM CAN CAUSE ERRONEOUSLY HIGH RESULTS. THE USE OF BACKGROUND CORRECTION MINIMIZES THESE INTERFERENCES.

PRINCIPLE OF METHOD:
THE SAMPLE IS DISPENDED INTO A SMALL GRAPHITE TUBE WHICH IS HEATED ELECTRICALLY. BY INCREASING THE TEMPERATURE INCREMENTALLY, THE PROCESSES OF DRYING, THERMAL DECOMPOSITION OF THE MATRIX AND THERMAL DISSOCIATION INTO FREE ATOMS CAN BE SEPARATED. DURING THE DRYING AND THERMAL DECOMPOSITION STAGES, AN INERT PURGING GAS STREAM OF ARGON IS PASSED THROUGH THE TUBE TO REMOVE SOLVENT AND MATRIX VAPOURS. DURING ATOMIZATION, THE GAS STREAM THROUGH THE GRAPHITE TUBE IS REDUCED OR SHUT OFF SO THAT THE FREE ATOMS REMAIN IN THE LIGHT BEAM FOR SEVERAL TENTHS OF A SECOND. CONSEQUENTLY, A CONSIDERABLY LARGER NUMBER OF ATOMS ARE STIMULATED TO LIGHT ABSORPTION AT 283.3 NM, THUS ALLOWING THE USE OF VERY SMALL SAMPLE AMOUNTS OR THE DETECTION OF VERY SMALL ABSOLUTE TRACE AMOUNTS. THE FORM OF LEAD MEASURED (I.E. EXTRACTABLE OR OR TOTAL) DEPENDS UPON SAMPLE PRE-TREATMENT.

2308 INTERFERENCES:
1. THE TKN ANALYSIS IS SUBJECT TO INTERFERENCES MENTIONED IN THE GENERAL SECTION ON "AUTOMATED ANALYSIS", I.E., COLOUR, TURBIDITY, PH EXTREMES, ETC.
2. IRON AND CHROMIUM IONS TEND TO CATALYZE WHILE COPPER IONS TENDS TO INHIBIT THE INDOPHENOL COLOUR REACTIONS.
3. NITROGEN COMPOUNDS FROM OUTSIDE SOURCES WILL CAUSE HIGH RESULTS, E.G., AMMONIA VAPOURS.
4. CALCIUM AND MAGNESIUM IONS MAY BE PRESENT IN CONCENTRATIONS SUFFICIENT TO CAUSE PRECIPITATION PROBLEMS DURING ANALYSIS. THIS CAN BE OVERCOME BY ADDITION OF COMPLEXING REAGENTS SUCH AS SODIUM CITRATE OR POTASSIUM SODIUM TARTRATE.

PRINCIPLE OF METHOD:
THE SAMPLE IS DIGESTED WITH A SULFURIC ACID SOLUTION CONTAINING PERCHLORIC ACID AND SELENIUM DIOXIDE CATALYSTS TO CONVERT ORGANIC NITROGEN TO AMMONIUM SULFATE. THE DIGEST IS NEUTRALIZED WITH SODIUM HYDROXIDE SOLUTION AND TREATED WITH ALKALINE PHENOL AND SODIUM HYPOCHLORITE REAGENT TO FORM A BLUE COLOUR DESIGNATED AS INDOPHENOL. SODIUM NITROPRUSSIDE IS THEN ADDED AS A CATALYST. THE COLOUR INTENSITY MEASURED AT 630 NM IS PROPORTIONAL TO THE TOTAL KJELDAHL NITROGEN (TKN AS N) CONCENTRATION.

2309 INTERFERENCES:
1. THE SULPHATE ANALYSIS IS SUBJECT TO INTERFERENCES MENTIONED IN THE GENERAL SECTION ON "AUTOMATED ANALYSIS", I.E., COLOUR, TURBIDITY, PH EXTREMES, ETC.
2. CATIONS SUCH AS CALCIUM, ALUMINUM, AND IRON INTERFERE BY COMPLEXING WITH METHYLTHYMOL BLUE. THESE IONS ARE REMOVED BY ION EXCHANGE.
3. SULPHIDE, SULPHITE, PHOSPHATE, AND TANNIC ACIC ARE MAJOR

METHOD CODE DESCRIPTION

2309 INTERFERENCES BUT ARE SELDOM FOUND IN CONCENTRATIONS WHICH AFFECTS THE ANALYSIS.
PRINCIPLE OF METHOD:
THE SAMPLE, PASSED THROUGH A CATION-EXCHANGE COLUMN TO REMOVE INTERFERENCES, IS REACTED WITH BARIUM CHLORIDE AT PH 2.5-3.0 TO FORM A BLUE COLOURED CHELATE AT PH 12.5-13.0. UNCOMPLEXED METHYLTHYMOL BLUE COLOUR IS GREY. INITIALLY, THE BARIUM CHLORIDE AND METHYLTHYMOL BLUE ARE EQUIMOLAR AND EQUIVALENT TO THE HIGHEST CONCENTRATION OF SULPHATE ION EXPECTED. THUS THE AMOUNT OF UNCOMPLEXED METHYLTHYMOL BLUE, MEASURED AT 460 NM, IS EQUAL TO THE SULPHATE PRESENT.

2310 ATOMIC ABSORPTION BY DIRECT ASPIRATION. METHOD IS IDENTICAL TO THAT OF PARAMETER 19051L (PROPOSED) EXCEPT THAT THE ABSORBANCE IS MEASURED AT 285.2 NM. AN ACETYLENE-AIR FLAME IS USED AND THE DETECTION LIMIT IS 0.5 MG/L IN SEDIMENT.

2311 SUM OF DDT IN SEDIMENT (CODE 18001L), DDE IN SEDIMENT (CODE 18021L) AND TDE (OR DDD) IN SEDIMENT (CODE 18011L).

2312 ATOMIC ABSORPTION BY DIRECT ASPIRATION. THE SAMPLE IS SIEVED TO PASS A 20 MESH SIEVE, AND WEIGHTED ACCURATELY IN POLYPROPYLENE WIDE MOUTH BOTTLE. CONCENTRATED HCL IS ADDED AND THE SAMPLE IS HEATED TO 90 DEGREES CELSIUS FOR 60 MINUTES WITH OCCASIONAL AGITATION. THE SOLUTION IS THEN FILTERED AND THE ABSORBANCE IS MEASURED AT 765.5 NM. AN AIR-ACETYLENE FLAME IS USED AND THE DETECTION LIMITED IS 0.5 MG/KG IN SEDIMENT.

2313 VERSENE TITRATION. CA IS EXTRACTED THROUGH HYDROFLUORIC AND PERCHLORIC ACID MIXTURE, AND THEN MEASURED BY EDTA PHOTOELECTRIC TITRATION USING MUREXIDE INDICATOR.
REF: THOMAS, R.L. ET AL., 1972. REPORT ON THE SURFICIAL SEDIMENT DISTRIBUTION OF THE GREAT LAKES, PART 1 - LAKE ONTARIO. GSC PAPER 72-17.

2314 ATOMIC ABSORPTION BY DIRECT ASPIRATION. METHOD IS IDENTICAL TO THAT OF PARAMETER 19051L (PROPOSED) EXCEPT THAT THE ABSORBANCE IS MEASURED AT 279.5 NM. AN ACETYLENE-AIR FLAME IS USED AND THE DETECTION LIMIT IS 0.5 MG/KG IN SEDIMENT.

2315 ATOMIC ABSORPTION BY DIRECT ASPIRATION. METHOD IS IDENTICAL TO THAT OF PARAMETER 19051L (PROPOSED) EXCEPT THAT THE ABSORBANCE IS MEASURED AT 248.3 NM. AN ACETYLENE-AIR FLAME IS USED AND THE DETECTION LIMIT IS 0.5 MG/KG IN SEDIMENT.

2316 CAPILLARY COLUMN GAS CHROMATOGRAPHY/MASS SPECTROMETRY SURFACE WATER (1L) IS SPIKED WITH DEUTERATED SURROGATE. SAMPLES ARE SERIALLY EXTRACTED WITH METHYLENE CHLORIDE AT A PH LESS THAN 2 USING A SEPARATORY FUNNEL. THE METHYLENE CHLORIDE EXTRACT IS DRIED, CONCENTRATED TO A VOLUME OF 500 UL, TREATED WITH DIAZOMETHANE AND SPIKED WITH DEUTERATED INTERNAL STANDARDS. THE SOLUTION IS ANALYZED USING A CAPILLARY COLUMN AND MASS SPECTROMETRY DETECTION SCREENING IS PERFORMED USING SELECTED ION RELATIVE RETENTION TIME AND RELATIVE ABUNDANCES OF TWO OR MORE CHARACTERISTIC IONS. QUANTITATION IS COMPLETED USING THE MAJOR SELECTED ION AREA CALCULATED USING AN INTERNAL STANDARD CALCULATION. ANTHRACENE D20 IS ADDED AS AN INTERNAL STANDARD. DETECTION LIMIT FOR ALL COMPOUNDS IS 0.1 UG/L EXCEPT FOR B(A)P AT 0.01 UG/L.
PENTACHLOROPHENOL IS ANALYZED AS THE DERIVITIZED ETHER.
REQ'D BY: EQMB, EAD, ALBERTA ENVIRONMENT

2317 THE PHENOLS WERE ANALYZED BY EXTRACTING THE SAMPLE WITH DICHLOROMETHANE (DCM) UNDER ACIDIC CONDITIONS, THEN REDUCING THE SOLVENT TO A LOW VOLUME. THIS EXTRACT IS INJECTED ONTO A CAPILLARY COLUMN, THEN ANALYZED BY GC/MS.

2318 SIMILAR TO 06604 BUT SULFAMIC ACID IS ADDED TO ACID DIGESTION MIXTURE TO SUPPRESS NITRATE/NITRITE INTERFERENCE.

2319 CAPILLARY COLUMN GAS CHROMATOGRAPHY/MASS SPECTROMETRY. SURFACE WATER (1L) IS SPIKED WITH DEUTERATED SURROGATE STANDARDS AND SERIALLY EXTRACTED WITH METHYLENE CHLORIDE AT A PH LESS THAN 2 AND AGAIN AT A PH GREATER THAN 11 USING A SEPARATORY FUNNEL. THE METHYLENE CHLORIDE EXTRACT IS DRIED, CONCENTRATED TO A VOLUME OF 1 ML AND SPIKED WITH DEUTERATED INTERNAL STANDARDS. THE SOLUTION IS ANALYZED USING A CAPILLARY COLUMN GAS CHROMATOGRAPH AND MASS SPECTROMETRY DETECTION. SCREENING IS PERFORMED USING THE RELATIVE RETENTION TIME AND RELATIVE ABUNDANCES OF TWO OR MORE CHARACTERISTIC IONS. FULL IDENTIFICATION OF

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METHOD CODE	DESCRIPTION
2319	ORGANICS SCREENED AND QUANTIFICATION ARE PERFORMED USING FULL REFERENCE SPECTRA, MULTI INTERNAL STANDARDS AND EXTRACTED AREAS OF CHARACTERISTIC IONS. NON_TARGET COMPOUNDS ARE TENTATIVELY IDENTIFIED USING MASS SPECTRAL LIBRARIES AND APPROXIMATE CONCENTRATION RANGES WHICH ARE COMPUTED USING RELATIVE TOTAL ION COUNTS. THE DETECTION LIMIT IS 10 UG/L. REQ'D BY: CHEMEX LABS ALBERTA INC. CALGARY, ALBERTA
2320	CAPILLARY COLUMN GAS CHROMATOGRAPHY/MASS SPECTROMETRY. THE METHOD IS IDENTICAL TO THAT OF ACENAPHTHENE. THE DETECTION LIMIT IS 20 UG/L. REQ'D BY: CHEMEX LABS ALBERTA INC. CALGARY, ALBERTA.
2321	BATCH PURGE AND TRAP/CAPILLARY COLUMN GAS CHROMATOGRAPHY/MASS SPECTROMETRY. UP TO 16 BATCH SAMPLES OF SURFACE WATER (5MLS) ARE SPIKED WITH DEUTERATED SURROGATE STANDARDS AND INTERNAL STANDARDS, PURGED WITH HELIUM, AND VOLATILES ABSORBED ONTO A TENAX/SILICA GEL/CHARCOAL TRAP. THIS IS FOLLOWED BY A THERMAL DESORPTION AND ANALYSIS USING A 50 METER HP ULTRA 2 CAPILLARY COLUMN WITH MASS SPECTROMETRY DETECTION. SCREENING IS PERFORMED USING THE RELATIVE RETENTION TIME AND RELATIVE ABUNDANCES OF TWO OR MORE CHARACTERISTIC IONS. FULL IDENTIFICATION ORGANICS SCREENED AND QUALIFICAITONS ARE PERFORMED USING FULL REFERENCE SPECTRA, MULTI INTERNAL STANDARDS AND EXTRACTED AREAS OF CHARACTERISTIC IONS. THE DETENTION LIMIT IS 1 UG/L. REQ'D BY: CHEMEX LABS ALBERTA INC. CALGARY, ALBERTA.
2322	INTERFERENCES: SIGNIFICANT INTERFERENCES WITH INDUCTIVELY COUPLED ARGON PLASMA (ICAP) TECHNIQUES ARE OF THREE TYPES: SPECTRAL, PHYSICAL AND CHEMICAL. 1. SPECTRAL INTERFERENCES CAN OCCUR FROM THE OVERLAP OF A SPECTRAL LINE FROM ANOTHER ELEMENT; STRAY LIGHT; CONTINUUM BACKGROUND; OR MOLECULAR BAND OVERLAP. THE INTERFERENCE(S) MUST BE IDENTIFIED AND CORRECTED BY TECHNIQUES SUCH AS INTERELEMENT CORRECTION (MICROPROCESSOR CONTROLLED), SELECTION OF ALTERNATE WAVELENGTHS AND/OR THE USE OF BACKGROUND CORRECTION. 2. PHYSICAL INTERFERENCES ARE THOSE WHICH CAUSE FLUCTUATION IN THE RATE OR UNIFORMITY OF SAMPLE ASPIRATION. RESIDUE BUILDUP ON THE NEBULIZER, OR DIFFERENCES IN SAMLE VISCOSITY OR SURFACE TENSION CAN CAUSE PHYSICAL INTERFERENCES. SAMPLES WITH HIGH DISSOLVED SOLIDS AND/OR PH EXTREMES CAN PRESENT A PROBLEM. DILUTION OF THE SAMPLE, STANDARD ADDITION TECHNIQUES OR USE OF A PERISTALTIC PUMP CAN REDUCE THE EFFECTS OF THESE INTERFERENCES. 3. CHEMICAL INTERFERENCES ARE CHARACTERIZED BY MOLECULAR COMPOUND FORMATION, IONIZATION EFFECTS AND SOLUTE VAPORIZATION EFFECTS. NORMALLY, THESE EFFECTS ARE NOT PRONOUNCED WITH THE ICAP TECHNIQUE, HOWEVER, IS OBSERVED THEY CAN BE MINIMIZED BY CAREFUL SELECTION OF OPERATING CONDITIONS (I.E., INCIDENT POWER, OBSERVATION POSITION, ETC.), BY BUFFERING OF THE SAMPLE, BY MATRIX MATCHING, AND BY STANDARD ADDITION PROCEDURES. FOR DETAILED INFORMATION REGARDING INTERFERENCES FROM SPECIFIC ELEMENT, SEE REFERENCES 1 AND 2. PRINCIPLE OF METHOD: UNDER THE INFLUENCE OF A HIGH FREQUENCY MAGNETIC FIELD AND TESLA COIL SPARK, ARGON FORMS RAPIDLY MOVING CATIONS AND ELECTRONS WHICH COLLIDE WITH ARGON ATOMS AND IONIZE THEM. THE IONIZED ARGON ATOMS PRODUCE INTENSE HEAT (5000 DEG. K - 10000 DEG. K) REFERRED TO AS A PLASMA. THE SAMPLE IS NEBULIZED AND THE AEROSOL PRODUCED IS TRANSPORTED TO THE PLASMA TORCH.
2323	FISH SAMPLE IS EXTRACTED BY COLUMN EXTRACTION USING DICHLOROMETHANE AS SOLVENT. LIPIDS ARE REMOVED BY GPC CLEAN-UP STEP, FOLLOWED BY ACID/BASE MICRO COLUMN CLEAN-UPS. THE EXTRACT IS SUBJECTED TO FURTHER CLEAN-UP AND FRACTIONATION ON ALUMINA AND CARBON FIBRE COLUMNS. THE TOLUENE FRACTION FROM CARBON FIBRE IS ANALYSED BY GC-MSD SYSTEM.
2324	SEDIMENT SAMPLE IS EXTRACTED BY SOXHLET EXTRACTION METHOD USING TOLUENE AS SOLVENT. EXTRACT IS CONCENTRATED AND CLEAN-UP BY ACID/BASE SILICA GEL MICRO COLUMN. FURTHER CLEAN-UP AND FRACTIONATION IS DONE ON ALUMINA AND CARBON FIBRE COLUMNS. THE TOLUENE FRACTION FROM CARBON FIBRE COLUMN IS ANALYSED BY GC-MSD SYSTEM.
2325	WATER SAMPLE IS EXTRACTED BY LARGE VOLUME EXTRACTOR. THE EXTRACT IS CONCENTRATED AND CLEAN-UP BY ACID/BASE SILICA GEL MICRO COLUMN. FURTHER CLEAN-UP AND FRACTIONATION IS DONE ON ALUMINA AND CARBON FIBRE COLUMNS. THE TOLUENE FRACTION FROM CARBON FIBRE IS ANALYSED BY GC-MSD SYSTEM.

METHOD CODE	DESCRIPTION
2326	PRINCIPLE OF METHOD: IN THIS AUTOMATED PROCEDURE FOR SULPHATE, THE SAMPLE IS FIRST PASSED THROUGH A CATION EXCHANGE COLUMN TO REMOVE INTERFERENCES. THE SAMPLE CONTAINING SULFATE IS THEN REACTED WITH BARIUM CHLORIDE AT PH OF 2.5-3.0 TO FORM BARIUM SULFATE. EXCESS BARIUM REACTS WITH METHYL-THYMOL BLUE TO FORM A BLUE-COLORED CHELATE AT A PH OF 12.5-13.0. THE UNCOMPLEXED METHYLTHYMOL BLUE COLOR IS GRAY: CHELATED WITH BARIUM, THE COLOR IS BLUE. THE AMOUNT OF UNCOMPLEXED METHYLTHYMOL BLUE, MEASURED AT 460 NM IS PROPORTIONAL TO THE SULFATE PRESENT. REF: TRAACS 800 METHOD NO. 847-87T. PRECISION AND ACCURARY: NOT FULLY EVALUATED. EQUIPMENT: TRAACS 800 SYSTEM.
2327	DIFFERENCE BETWEEN TOTAL ANIONS MEASURED BY ION CHROMATOGRAPHY AND THE SUM OF NITRATE AND SULPHATE, AND CHLORIDE. REQ'D FOR ELA DATA UPDATE.
2328	COLORIMETRY USING HETEROPOLY BLUE METHOD ON AN AUTOANALYSER (TRAACS SYSTEM). IF THE SAMPLE IS SEA WATER ALL STD. SIO2 SOLNS. ARE PREPARED WITH SYNTHETIC SEA WATER. AN UNFILTERED ALIQUOT IS MIXED WITH A SOLN. OF (NH4)6MO7024 IN DIL. H2S04. THE SAMPLE IS THEN SUCCESSIVELY MIXED WITH OXALIC AND ASCORBIC ACID SOLNS. THE RESULTING HETEROPOLY BLUE COLOUR IS MEASURED SPECTROPHOTOMETRICALLY AT 660 MU AND COMPARED WITH THOSE OF IDENTICALLY PREP'D STD SIO2 SOLNS.
2329	COLORIMETRY USING HETEROPOLY BLUE METHOD ON AN AUTOANALYSER. IF TURBID, THE SAMPLE IS PASSED THROUGH A .45 U MEMBRANE FILTER. IF THE SAMPLE IS SEA WATER, ALL STD. SI02 SOLNS. ARE PERPARED WITH SYNTHETIC SEA WATER. A FILTRATE ALIQUOT IS MIXED WITH A SOLN. OF (NH4)6MO7024 IN DIL. H2SO4. THE SAMPLE IS THEN SUCCESSIVELY MIXED WITH OXALIC AND ASCORBIC ACID SOLNS. THE RESULTING HETEROPOLY BLUE COLOUR IS MEASURED SPECTROPHOTOMETRICALLY AT 660 MU AND COMPARED WITH THOSE OF IDENTICALLY PREP'D STD SIO2 SOLNS.
2330	PRINCIPLE OF METHOD: IN THIS AUTOMATED PROCEDURE THE SAMPLE IS PASSED THROUGH A FIXED WAVELENGTH COLOURIMETER, 436 NM, AND THE ABSORBANCE READING CONVERTED INTO COLOUR UNITS BY AN IN-LINE PERSONAL COMPUTER. CALIBRATING SOLUTION: FISHER SCIENTIFIC PLATINUM/COBALT COLOUR STANDARD NO.500 PRECISION AND ACCURACY: AT 200 AND 25 COLOUR UNITS LEVELS - THE COEFFICIENTS OF VARIATION WERE +1.3 OR -1.3 AND +1.8% OR -1.8% RESPECTIVELY. EQUIPMENT: AUTOSAMPLER. PUMP SUCH AS WATERS - 45 ABSORBANCE DETECTOR SUCH AS WATERS MODEL 441 PERSONAL COMPUTER SUCH AS EPSON HX-20
2331	THE UNFILTERED SAMPLE IS DIGESTED IN AN AUTOCLAVE USING A SULFURIC ACID-PERSULFATE MIXTURE. THE DIGEST IS ANALYSED COLORIMETRICALLY ON TECHNICON TRAACS 800. PHOSPHOROUS IS REACTED WITH AMMONIUM MOLYBDATE. THE PHOSPHO-MOLYBDATE COMPLEX IS REDUCED WITH A STANNOUS CHLORIDE-HYDRAZINE SULFATE MIXTURE. THE RESULTING BLUE COLOR IS MEASURED AT 660 NM. RAW DATA IS AUTOMATICALLY ACQUIRED AND PROCESSED ON AN IBM PS/2 USING TECHNICON PROPRIETARY SOFTWARE TO PRODUCE A FINAL REPORT OF SAMPLE CONCENTRATIONS. SAMPLIN RATE IS 100/HOUR. DETECTION LIMIT IS 0.002 MG/L.
2332	THE SAMPLE IS FILTERED USING CELLULOSE ACETATE, 0.45 UM PORE SIZE FILTER (FIELD) OR WHATMAN GF/C FILTER (LAB). IT IS THEN DIGESTED IN AN AUTOCLAVE USING A SULFURIC ACID PERSULFATE MIXTURE. THE DIGEST IS ANALYSED COLORIMETRICALLY ON TECHNICON TRAACS 800. PHOSPHOROUS IS REACTED WITH AMMONIM MOLYBDATE. THE PHOSPHO-MOLYBDATE COMPLEX IS REDUCED WITH A STANNOUS CHLORIDE-HYDRAZINE SULFATE MIXTURE. THE RESULTING BLUE COLOR IS MEASURED AT 660 NM. RAW DATA IS AUTOMATICALLY ACQUIRED AND PROCESSED ON AN IBM PS/2 USING TECHNICON PROPRIETARY SOFTWARE RATE IS 100/HOUR. DETECTION LIMIT IS 0.002 MG/L
2333	A WATER SAMPLE IS FILTERED THROUGH A WHATMAN GF/C FILTER. THE RESIDUE IS EXTRACTED WITH PYRIDINE. AFTER CENTRIFUGATION, THE SUPERNATENT PYRIDINE IS MADE SLIGHTLY AQUEOUS AND SUBJECTED TO REVERSE PHASE PARTITION CHROMATOGRAPHY TO REMOVE THE PYRIDINE AND ANY POLAR INTERFERING CO-EXTRACTANTS. THE RETAINED CHLOROPHYLL PIGMENTS ARE ELUTED WITH A SMALL VOLUME OF ACETONE. AFTER CONTRIFUGATION, THE ACETONE EXTRACT IS ANALYSED BY REVERSE PHASE LIQUID CHROMATOGRAPHY WITH FLUOROMETRIC DETECTION. OTHER CHLOROPHYLLS, PHEOPHYTINE AND OTHER POTENTIAL INTERFERENCES ARE SEPERATED FROM CHLOROPHYLL-A BY THE LIQUID CHROMATOGRAPHIC STEP.

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METHOD CODE	DESCRIPTION
2333	DETECTION LIMIT: IF 100 ML OF SAMPLE IS FILTERED FOR EXTRACTION AND THREE QUARTERS OF THE EXTRACT IS CLEANED UP AND CONCENTRATED TO A FINAL VOLUME OF 2 ML AND 100 UL IS INJECTED ON THE LC COLUMN, THE 0.016 UG/L OF CHLOROPHYLL-A CAN BE DETECTED. VALIDATION RANGE: 0-* (UPPER RANGE IS LIMITED BY SAMPLE VOLUME AND DILUTION OF THE FINAL EXTRACT - THESE 2 VARIATIONS CAN BE ADJUSTED TO PRODUCE A FINAL EXTRACT WHICH WILL FALL WITHIN THE LINEAR RANGE OF THE FLUOROMETRIC DETECTOR).
2334	THE SAMPLE IS FILTERED USING CELLULOSE ACETATE, 0.45 UM PORE SIZE FILTER (FIELD) OR WHATMAN GF/C FILTER (LAB). THE SAMPLE IS ANALYSED COLORIMETRICALLY ON TECHNICON TRAACS 800. PHOSPHOROUS IS REACTED WITH AMMONIUM MOLYBDATE. THE PHOSPHO-MOLYBDATE COMPLEX IS REDUCED WITH STANNOUS CHLORIDE-HYDRAZINE SULFATE MIXTURE. THE RESULTING BLUE COLOR IS MEASURED AT 600 NM. RAW DATA IS AUTOMATICALLY ACQUIRED AND PROCESSED ON AN IBM PS/2 USING TECHNICON PROPIETARY SOFTWARE TO PRODUCE A FINAL REPORT OF SAMPLE CONCENTRATIONS. SAMPLING RATE IS 100/HOUR. DETECTION LIMIT IS 0.002 MG/L.
2335	COLORIMETRY ON AN AUTOANALYSER WHERE THE ORGANIC PHOSPHOROUS IS DIGESTED BY UV IRRADIATION (PHOTO-OXIDATION) IN THE PRESENCE OF ACIDS. THE POLYPHOSPATES THUS FORMED ARE HYDROLIZED TO ORTHOPHOSPATES IN THE PRESENCE OF H2SO4; THE ORTHOPHOSPHATES THEN REACT WITH THE MIXTURE OF AMMONIUM-MOLYBDATE AND H2SO4 TO FORM MOLYBDOPHOSPHORIC ACID WHICH IS REDUCED BY ASORBIC ACID TO FORM A BLUE COMPLEX. REQ'D BY: ENVIRONMENT QUEBEC JULY 1989.
2336	COLLECT, IDENTIFY AND COUNT AT THE SURFACE OF STERILE FILTER MEMBRANE THE FECAL COLIFORMS. INCUBATED 22-26 HOURS AT 44.3-44.7 DEG. C IN AN M-FC SELECTIVE CULTURE. THE FECAL COLIFORMS FERMENTED LACTOSE AND MADE BY PRODUCT WHICH AS REACTION TO CATABOLISM TURNED ANALIN BLUE. REF: STANDARD METHODS FOR EXAMINATION OF WATER AND WASTE WATER 14TH EDITION 1975, METHOD 909C PAGE 937. REQ'D BY: ENVIRONMENT QUEBEC, JULY 1989.
2337	CODES FOR CONDITION OF SAMPLING DONE IN THE FIELD CODE VALUES CORRESPOND BEST TO THE SITUATION WHEN SAMPLING WAS DONE. 1-NORMAL SAMPLING; 2-INCOMPLETE SAMPLING; 3-STATION SAMPLING BUT SAMPLE NOT ANALYZED; 4-STATION VISITED BUT NOT SAMPLED; 5-STATION NOT VISITED; 99-SPECIAL SAMPLING. REQ'D BY: ENVIRONMENT QUEBEC, JULY 1989.
2338	CONDITION OF SAMPLING IN THE LABORATORY EXPRESSED IN CODES. MORE THAN ONE CODE POSSIBLE. 1-SAMPLE CONTAMINATED; 2-INCORRECT LABELING OF SAMPLES (2 IDENTICAL BOTTLES); 3-DELAY IN CONSERVATION OF SAMPLE NOT RESPECTED; 4-ONE OR MORE PARAMETERS NOT ANALYZED; 5-SAMPLE DOES NOT CONFORM TO PROTOCOL; 6-IONIC BALANCE NOT ACCEPTABLE; 7-CONDUCTIVITY CALCULATED IS DIFFERENT FROM ONE MEASURED BUT IONIC BALANCE IS GOOD; 8-IONIC BALANCE WAS CARRIED OUT WITHOUT IRON OR ALUMINUM; 9-FROZEN SAMPLE; 10-QUANTITY INSUFFICIENT. REQ'D BY: ENVIRONMENT QUEBEC, JULY 1989.
2339	THE SEDIMENT SAMPLE IS ULTRASONICALLY EXTRACTED WITH 1:1 HEXANE-ACETONE SOLVENT MIXTURE, BACK EXTRACTED INTO A 2% POTASSIUM BICARBONATE SOLUTION AND FRACITIONNATED ON FLORISIL COLUMNS. GAS LIQUID CHROMATOGRAPHY COUPLED WITH AN EC DETECTOR IS USED FOR ANALYSIS
2340	SEDIMENT SAMPLE IS EXTRACTED BY ULTRASONIC METHOD USING 1:1 MIXTURE OF ACETONE-HEXANE PESTICIDE GRADE SOLVENTS. RAW EXTRACT IS ANALYSED BY GAS CHROMATOGRAPHY-MASS SPECTROMETRY USING MULTIPLE ION MONITORING (MIN).
2341	WATER SAMPLE IS EXTRACTED BY LARGE VOLUME EXTRACTOR, CONCENTRATED TO A DESIRED FINAL VOLUME AND ANALYSED BY GAS CHROMATOGRAPHY USING NP DETECTOR.
2342	WATER SAMPLE IS EXTRACTED BY LARGE VOLUME EXTRACTOR WITH PESTICIDE GRADE DICHLORO METHANE AS SOLVENT. EXTRACT IS SUBSEQUENTLY CONCENTRATED, CLEAN-UP AND FRACTIONATED ON 3% DEACTIVATED SILICA GEL COLUMN. FRACTIONS ARE CONCENTRATED TO A DESIRED VOLUME AND ANALYSED ON GAS CHROMATOGRAPH EQUIPPED WITH ELECTRON CAPTURE DETECTOR.
2343	WATER SAMPLE IS EXTRACTED BY LARGE VOLUME EXTRACTOR USING DICHLORO-METHANE AS SOLVENT. EXTRACTED ACID HERBICIDES ARE DERIVATIZED TO THEIR CORRESPONDING ESTERS WITH PENTA FLUORO-BENZYL BROMIDE FOLLOWED BY CLEAN-UP AND FRACTIONATION ON 5% DEACTIVATED SILICA GEL COLUMN.

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METHOD CODE	DESCRIPTION
2343	COLLECTED FRACTIONS ARE ANALYSED BY GAS CHROMATOGRAPHY WITH ELECTRON CAPTURE DETECTION SYSTEM.
2344	WATER SAMPLE IS EXTRACTED BY LARGE VOLUME EXTRACTOR USING PESTICIDE GRADE DICHLORO METHANE AS A SOLVENT. EXTRACT IS CLEAN-UP AND FRACTIONATED ON 10% DEACTIVATED FLORISIL COLUMN. COLLECTED FRACTIONS ARE CONCENTRATED TO DESIRE FINAL VOLUME AND ANALYSED BY GAS CHROMATOGRAPHY USING ELECTRON CAPTURE DETECTOR.
2345	WATER SAMPLE IS EXTRACTED BY LARGE VOLUME EXTRACTOR, WHICH IS SUBSEQUENTLY CONCENTRATED TO A DESIRED FINAL VOLUMN AND ANALYSED BY GC-MS SYSTEM USING SHRADER PROTOCOL.
2346	5.0 GRAMS OF SEDIMENT SAMPLES ARE EXTRACTED IN 100 MLS. [0.5N] HCL, BY SHACKING OVERNIGHT [16 HRS] AND EACH BEING ANALYSED BY [ICP] AS FOLLOW: - EXTR. ALUMINUM AT 308.215 NM. - EXTR. BARIUM AT 455.403 NM. - EXTR. BERYLLIUM AT 313.042 NM. - EXTR. BORON AT 249.680 NM. - EXTR. CADMIUM AT 226.502 NM. - EXTR. COBALT AT 228.616 NM. - EXTR. CHROMIUM AT 267.716 NM. - EXTR. COPPER AT 324.754 NM. - EXTR. IRON AT 259.940 NM. - EXTR. LITHIUM AT 670.780 NM. - EXTR. MANGANESE AT 257.610 NM. - EXTR. MOLYBDENUM AT 202.030 NM. - EXTR. NICKEL AT 231.604 NM. - EXTR. LEAD AT 220.053 NM. - EXTR. STRONTIUM AT 407.771 NM. - EXTR. VANADIUM AT 292.402 NM. - EXTR. ZINC AT 213.856 NM. - EXTR. CALCIUM AT 317.933 NM. - EXTR. MAGNESIUM AT 279.553 NM. - EXTR. SODIUM AT 589.592 NM. - EXTR. POTASSIUM AT 766.490 NM.
2347	COLOURIMETRIC ANALYSIS USING THE REACTION OF BERTHELOT. PRACTICAL DECTECTION LIMITS VARY FROM PROJECT TO PROJECT. SEE ENVIRONMENT QUEBEC PARAMETER CODES DICTIONARY PARAMETER CODE 070322. REQ'D BY: ENVIRONMENT QUEBEC, JULY 1989.
2348	THE ANALYSIS IS CARRIED OUT USING A CDS 320 CONCENTRATOR (PURGE AND TRAP) COUPLED TO A GC/MS SYSTEM. A LIBRARY WAS CREATED BY ANALYSING THE VO TARGET COMPOUNDS AND REDUCING THE SPECTRA TO THEIR 2-10 MOST SIGNIFICANT MASSES.
2349	A 1L. SAMPLE IS EXTD. BY HEXANE. THESE EXTD(S) ARE THEN FILTERED THROUGH SODIUM SULFATE AND CONCENTRATED BY ROTARY EVAPORATION. THIS SOLUTION IS THEN "CLEANED UP" BY FLOROSIL COLUMN CHROMATOGRAPHY, THE RESULT BEING 3 SEPARATE FRACTIONS. EACH FRACTION IS THEN INJECTED INTO A GAS CHROMATOGRAPH. THE NON-SOLVENT AREAS OF THE CHROMATOGRAPH ARE COMPARED TO THOSE OF STD SOLUTIONS OF THE PURIFIED PCB. THE GC IS EQUIPED WITH A DUAL ELECTRON CAPTURE DETECTOR PCB. THE GC IS EQUIPPED WITH A DUAL ELECTRON CAPTURE DETECTOR; IF A PESTICIDE IS DETERMINED ON ONE COLUMN, THEN CONFIRMATION IS DONE ON THE SECOND COLUMN OR THE EXTRACT IS RUN ON A PACKED CHROMATOGRAPHIC COLUMN FOR THE SEPARATE PCB'S ANALYSES. REQ'D BY: CSL, LONGUEUIL, DEC. 1989.
2350	ASHING WITH MAGNESIUM OXIDE/NITRATE SLURRY TO REDUCE ORGANIC FORMS TO INORGANIC. THE ARSENIC CONPOUNDS ARE CONVERTED TO ARSENE WITH SODIUM BOROHYDRIDE. THE HYDRIDE GAS AND HYDROGEN EVOLVED FROM THE CHEMICAL REACTION ARE COMBUSTED IN A TUBE FURNACE. THE ABSORBANCE IS MEASURED SPECTROPHOTOMETRICALLY AT 193.7 NM. REQ'D BY: PROV. MANITOBA FOR DATA EXCHANGE.
2351	EXTRACTABLE ARSENIC IS DETERMINED SIMILARY, ELEMINATING THE DIGESTION/ ASHING PROCEDURE. REQ'D BY: PROV. MANITOBA FOR DATA EXCHANGE.
2352	BATCH PURGE AND TRAP/CAPILLARY COLUMN GAS CHROMATOGRAPHY/MASS SPECTROMETRY. UP TO 16 BATCH SAMPLES OF SOLID MATERIAL (1-5 GMS.) IN 5 MLS. OF ORGANIC FREE WATER ARE SPIKED WITH DEUTERATED SURROGATE STANDARDS AND INTERNAL STANDARDS, PURGED WITH HELIUM AND VOLATILES ADSORBED ONTO A TENAX/SILICA GEL/CHARCOAL TRAP. THIS IS FOLLOWED BY A THERMAL DESORPTION AND ANALYSIS USING A 50 METER HP ULTRA 2 CAPILLARY COLUMN

ENVIRODAT/NAQUADAT METHOD CODES AND DESCRIPTIONS

METHOD CODE	DESCRIPTION
2352	WITH MASS SPECTROMETRY DETECTION. SCREENING IS PERFORMED USING THE RELATIVE RETENTION TIME AND RELATIVE ABUNDANCES OF TWO OR MORE CHARACTERISTIC IONS. FULL IDENTIFICATION OF ORGANICS SCREENED AND QUALIFICATIONS ARE PERFORMED USING FULL REFERENCE SPECTRA, MULTI INTERNAL STANDARDS AND EXTRACTED AREAS OF CHARACTERISTIC IONS. REQ'D BY: CHEMEX LABS ALBERTA INC., CALGARY, ALBERTA.
2353	FISH SAMPLE IS EXTRACTED IN SOXHLET APPARATUS USING PETROLEUM ETHER AS SOLVENT. EXTRACT IS CONCENTRATED UNTIL ALL SOLVENT HAS BEEN REMOVED. THE RESIDUE IS WEIGHTED AS LIPIDS.
2354	AUTOMATED POTENTIOMETRIC METHOD. FLUORIDE IS DETERMINED POTENTIOMETRICALLY IN A FLOW-THROUGH SYSTEM USING A SPECIFIC ION ELECTRODE AND A TECHNICON ISE DETECTOR. A STRIP CHART RECORDER AND A PRINTER PROVIDE CONTINUOUS MONITORING OF THE ELETRODE OUTPUT AND AUTOMATIC PRINTOUT OF THE POTENTIAL AT OPTIMUM PEAK HEIGHTS. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH.
2355	CALC'D
2356	LIGHT INTENSITY IS MEASURED UNDER WATER USING A PHOTOMETER, (LI-COR MODEL LI-185A). INTENSITY IS MEASURED AT VARYING DEPTHS AND THE VERTICAL EXTINCTION COEFFICIENT IS RECORDED. PERTAINS TO THE PHYSICAL DESCRIPTION OF THE EFFLUENT OR WATER BODY. REQ'D BY: ESQUADAT - SAK. DEPT. OF ENVIRONMENT, JULY, 1977.
2357	AN ALPHA COLOUR STANDARD IS COMPARED TO THE SAMPLES. WHICH ARE MEASURED ON THE SPECTROPHOTOMETER 70. REQ'D BY: SASK. ENVIRONMENT, APRIL 1980.
2358	THE SAMPLE IS ACIDIFIED TO PH LESS THAN 2.0 WITH PHOSPHORIC ACID AND SPARGED WITH NITROGEN. THE SAMPLE IS SUBJECTED TO OXIDATION BY UV/PERSULFATE/02. EVOLVED CO2 IS QUANTIFIED BY AN INFRARED DETECTOR PREVIOUSLY CALIBRATED AGAINST SUITABLED STANDARDS. THE SAMPLE IS FILTERED THROUGH A WASHED 0.45 MICRON FILTER PRIOR TO ANALYSIS. REQ'D FOR ESQUADAT. NOV 1988.
2359	COLOURIMETRY ON AN AUTOANALYZER. THE SAMPLE, AFTER FILTRATION THROUGH A 0.45 U MEMBRANE FILTER, IS REDUCED BY CD. THE RESULTING NITRITE IS DETERMINED WITH SULPHANILIC ACID AND 1-NAPHTHYLAMINE.
2360	COLOURIMETRY ON THE SHAKEN SAMPLE WITH SULPHANILIC ACID AND 1-NAPHTHYLAMINE. A 320-D COLOUR DISC IS USED. REQ'D BY: GARRISON STUDY (MINN) JANUARY, 1976.
2361	COLOURIMETRY. THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. THE MITRITE IS DETERMINED WITH SULPHANILIC ACID AND 1-NAPHTHYLAMINE.
2362	COLOURIMETRIC ON AUTOANALYZER WITH (NH4)6MO7O24, SNCL2, AND H2NNH2.H2SO4 AFTER DIGESTION WITH H2SO4 AND K2S2O8. SHAKEN SAMPLE.
2363	ATOMIC ABSORPTION BY DIRECT ASPIRATION. THE SAMPLE IS PASSED THROUGH A 0.45 U MEMBRANE FILTER. THE FILTER, CONTG. THE RESIDUE IS DIGESTED WITH HNO3. THE PH OF THIS SOLN. IS ADJUSTED TO 1.6, THE SOLN. IS ASPIRATED, AND THE ABSORBANCE IS MEASURED SPECTROPHOTOMETRICALLY AT 358.0 MU AND THEN COMPARED WITH THOSE OF STD. CR207 ION SOLNS. A C2H2-AIR REDUCING FLAME IS USED. REF: ANALYTICAL METHODS MANUAL, WATER QUALITY BRANCH, ENVIRONMENT CANADA, OTTAWA, 1974.
2364	SOLVENT EXTRACTION WITH MIBK, APPC (LOWER LEVEL) THE SAMPLE IS DIGESTED WITH C.HNO3. ATOMIC ABSORPTION BY DIRECT ASPIRATION AND MEASURED AT 313.NM. PLASTIC SAMPLE CONTAINER AND 2 ML. OF C.HNO3 PRESERVATIVE PER LITRE OF SAMPLE. REQ'D BY: ESQUADAT - SASK. DEPT. OF ENVIRONMENT, JULY, 1977.
2365	NO METHOD DESCRIPTIONS
2366	BIOTA SAMPLE IS EXTRACTED WITH DICHLOROMETHANE USING POLYTRON. EXTRACT IS DRIED AND CONCENTRATED USING SODIUM SULFATE AND ROTARY EVAPORATOR TO ABOUT 3 ML. CLEAN UP AND FRACTIONATION IS DONE ON FLORISIL COLUMN. THREE FRACTIONS FROM THE COLUMN ARE ANALYSED BY GAS CHROMATOGRAPHY.

5711 records selected.

MISCELLANEOUS CODES AND DESCRIPTIONS

ENVIRODAT/NAQUADAT GENERAL CODES AND DESCRIPTIONS

CODE TYPE	CODE	DESCRIPTION
AGENCY	001	ENVIRONMENT CANADA, WATER QUALITY BRANCH
	002	ENVIRONMENT CANADA, WATER RESOURCES BRANCH
	003	NOVA SCOTIA DEPARTMENT OF HEALTH
	004	PEI WATER AUTHORITY
	005	ABITIBI - PRICE INC.
	006	NEWFOUNDLAND WATER AUTHORITY
	007	ABITIBI-PRICE INC., GRAND FALLS DIVISION
	008	NEW BRUNSWICK DEPARTMENT OF FISH AND WILDLIFE
	009	DEPARTMENT OF FISHERIES AND OCEANS
	010	ALBERTA DEPARTMENT OF THE ENVIRONMENT
	011	PROCTOR AND REDFERN
	012	NEWFOUNDLAND DEPARTMENT OF HEALTH
	013	UNIVERSITY OF MONCTON
	014	AMHERST WATER COMMISSION
	015	ALBERTA EASTERN ROCKIES FOREST CONSERVATION BOARD
	016	ALBERTA OIL SANDS ENVIRONMENTAL RESEARCH PROGRAM
	017	ALBERTA RESEARCH COUNCIL
	018	ALBERTA FOREST SERVICE
	019	PRAIRIE PROVINCES WATER BOARD
	020	ALTA. ST. MARY - MILK RIVER DEVELOPMENT COMMISSION
	021	ENVIRONMENT CANADA, ENVIRONMENTAL PROTECTION SERVICE
	022	SOCIETE D'ENERGIE DE LA BAIE JAMES
	023	KORAB
	024	B.C. POLLUTION CONTROL BOARD
	025	UNIVERSITY OF OTTAWA
	026	REGIONAL MUNICIPALITY OF OTTAWA CARLETON
	027	ENVIRONMENT CANADA, ATMOSPHERIC ENVIRONMENT SERVICE
	028	ENERGY MINES AND RESOURCES, GEOLOGICAL SURVEY OF CANADA
	029	TRANSPORT CANADA
	030	ALGOMA STEEL CORPORATION LIMITED
	031	UNIVERSITY OF MINNESOTA
	032	UNIVERSITY OF NEW BRUNSWICK
	033	PEI DEPARTMENT OF AGRICULTURE AND FORESTRY
	035	ALCAN SMELTERS AND CHEMICALS LTD.
	037	AMAX MINING
	040	ASSOCIATED ENGINEERING SERVICES LIMITED
	041	ATOMIC ENERGY OF CANADA
	043	BLACK MOUNTAIN IRRIGATION DISTRICT
	044	BOISE CASCADE CANADA LIMITED
	050	BRITISH COLUMBIA CRESTON WILDLIFE MANAGEMENT AREA
	055	BC MINISTRY OF ENVIRONMENT
	060	B.C. MINISTRY OF RECREATION AND CONSERVATION
	062	BRITISH COLUMBIA ELECTRIC RAILWAY COMPANY
	065	BRITISH COLUMBIA FOREST PRODUCTS LIMITED
	070	BRITISH COLUMBIA MINISTRY OF FORESTS
	075	BRITISH COLUMBIA HYDRO AND POWER AUTHORITY
	090	CANADA LAND AND IRRIGATION COMPANY
	095	CANADIAN COLLIERS (DUNSMUIR) LIMITED
	097	CANADIAN FORESTRY SERVICE (DOE) (CANADA)
	105	CANADIAN NATIONAL RAILWAYS
	110	CANADIAN PACIFIC RAILWAY
	115	CANADIAN UTILITIES LIMITED
	116	CANADIAN WILDLIFE SERVICE (DOE) (CANADA)
	120	CHURCHILL FALLS (LABRADOR) CORPORATION LIMITED
	125	CHURCHILL RIVER POWER COMPANY
	130	CITY OF CALGARY WATER WORKS DEPARTMENT
	140	CITY OF CRANBROOK
	155	CITY OF NANAIMO
	170	CITY OF VICTORIA
	175	CITY OF WINNIPEG HYDRO-ELECTRIC SYSTEM
	180	COLUMBIA RIVER LUMBER COMPANY
	185	COMINCO LIMITED
	190	CONSOLIDATED-BATHURST COMPANY LIMITED
	195	CONSOLIDATED MINING AND SMELTING COMPANY LIMITED
	205	CORPORATION OF THE DISTRICT OF NORTH VANCOUVER
	210	CRESTON DYKING DISTRICT
	212	DEER LAKE POWER COMPANY LTD.
	215	DEPARTMENT OF AGRICULTURE (CANADA)
	220	DEPT. OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
	225	DEPARTMENT OF NATIONAL DEFENCE (CANADA)
	230	DEPARTMENT OF PUBLIC WORKS (CANADA)
	240	DOMINION TEXTILES COMPANY
	245	DOMTAR PULP AND PAPER COMPANY
	250	DONNACONA PAPER COMPANY
	255	DUCKS UNLIMITED
	265	EASTERN IRRIGATION DISTRICT
	270	EDDY FOREST PRODUCTS LIMITED
	275	FISHERIES RESEARCH BOARD OF CANADA

ENVIRODAT/NAQUADAT GENERAL CODES AND DESCRIPTIONS

CODE TYPE	CODE	DESCRIPTION
AGENCY	280	OCEAN SCIENCE AND SURVEYS (DFO) (CANADA)
	285	FRESHWATER INSTITUTE (DFO) (CANADA)
	290	GEORGIA-PACIFIC CORPORATION
	293	GREAT LAKES FOREST PRODUCTS LIMITED
	295	GREAT LAKES POWER COMPANY LIMITED
	300	GREAT NORTHERN POWER COMPANY
	305	GREATER CAMPBELL WATER DISTRICT
	310	GREATER NANAIMO WATER DISTRICT
	315	GREATER VANCOUVER WATER DISTRICT
	320	GREATER WINNIPEG WATER DISTRICT
	322	GULF POWER COMPANY
	323	HARDY ASSOCIATES (1978 LTD)
	325	HEATH STEELE MINES LIMITED
	330	HINTON FORESTRY SCHOOL
	335	INTERNATIONAL LAKE SUPERIOR BOARD OF CONTROL
	337	INTERNATIONAL NIAGARA COMMITTEE
	340	INTERNATIONAL NICKEL COMPANY OF CANADA LIMITED
	345	INTERNATIONAL PACIFIC SALMON FISHERIES COMMISSION
	350	INTERNATIONAL ST. LAWRENCE RIVER BOARD OF CONTROL
	355	IRON ORE COMPANY OF CANADA LIMITED
	357	JAMES MACLAREN COMPANY LIMITED
	358	JOHN FOSD COMPANY LIMITED
	360	LETHBRIDGE NORTHERN IRRIGATION DISTRICT
	365	MACLAREN-QUEBEC POWER COMPANY
	370	MACMILLAN BLOEDEL LIMITED
	375	MAINE PUBLIC SERVICE COMPANY
	380	MANITOBA ENVIRONMENT (MAN. DEPT. OF MINES, RES. AND ENV. MANAGEMENT)
	385	MANITOBA HYDRO
	390	MANITOBA WATER RESOURCES BRANCH
	395	MINISTRY OF TRANSPORT (CANADA)
	400	NEW BRUNSWICK DEPARTMENT OF THE ENVIRONMENT
	405	NEW BRUNSWICK ELECTRIC POWER COMMISSION
	410	NEW BRUNSWICK WATER RESOURCES BRANCH
	425	NEWFOUNDLAND AND LABRADOR HYDRO
	430	NEWFOUNDLAND DEPARTMENT OF ENVIRONMENT
	435	NEWFOUNDLAND LIGHT AND POWER COMPANY LIMITED
	440	NORTH WESTERN PULP AND POWER LIMITED
	445	NORTHERN CANADA POWER COMMISSION
	450	NORTHERN TRANSPORT COMPANY LIMITED
	455	NOVA SCOTIA DEPARTMENT OF ENVIRONMENT
	460	NOVA SCOTIA DEPARTMENT OF LANDS AND FORESTS
	465	NOVA SCOTIA POWER CORPORATION
	470	NOVA SCOTIA WATER PLANNING AND MANAGEMENT BRANCH
	477	ONTARIO HYDRO
	480	ONTARIO MINISTRY OF NATURAL RESOURCES
	485	ONTARIO MINISTRY OF THE ENVIRONMENT
	490	ONTARIO MINNESOTA PULP AND PAPER COMPANY LIMITED
	493	ORILLIA LIGHT AND POWER
	494	PARKS CANADA (DOE) (CANADA)
	495	PEMBROKE ELECTRIC LIGHT COMPANY
	500	PRAIPIE FARM REHABILITATION ADMINISTRATION
	505	PRICE BROTHERS AND COMPANY LIMITED
	515	PRINCE EDWARD ISLAND DEPT. OF COMMUNITY AFFAIRS
	520	QUEBEC CARTIER MINING COMPANY
	525	QUEBEC DEPARTMENT OF NATURAL RESOURCES
	535	QUEBEC NORTH SHORE PAPER COMPANY
	540	QUEEN'S UNIVERSITY AT KINGSTON
	543	SAINT-RAYMOND PAPER COMPANY
	545	SASKATCHEWAN ENVIRONMENT AND PUBLIC SAFETY
	550	SASKATCHEWAN POWER CORPORATION
	555	SASKATCHEWAN RESEARCH COUNCIL
	556	SASKATCHEWAN WATER CORPORATION
	558	SMELTER POWER CORPORATION
	560	SPRUCE FALLS POWER AND PAPER COMPANY
	565	ST. LAWRENCE PAPER MILLS COMPANY
	570	ST. LAWRENCE SEAWAY AUTHORITY
	575	ST. MARY RIVER IRRIGATION DISTRICT
	580	SYNCRUDE CANADA LIMITED
	583	THE YUKON ELECTRICAL COMPANY LTD.
	585	TOWN OF FORT ST. JOHN
	588	TRANSALTA UTILITIES CORPORATION
	590	TWIN FALLS POWER CORPORATION LIMITED
	595	UNITED IRRIGATION DISTRICT
	600	UNITED STATES GEOLOGICAL SURVEY
	605	UNITED TOWNS ELECTRIC COMPANY LIMITED
	610	UNIVERSITY OF ALBERTA
	615	UNIVERSITY OF BRITISH COLUMBIA
	620	UNIVERSITY OF CALGARY BIOLOGY DEPARTMENT

ENVIRODAT/NAQUADAT GENERAL CODES AND DESCRIPTIONS

CODE TYPE	CODE	DESCRIPTION
AGENCY	625	UNIVERSITY OF ILLINOIS
	630	UNIVERSITY OF SASKATCHEWAN
	635	VANCOUVER POWER COMPANY
	640	VERNON IRRIGATION DISTRICT
	645	VILLAGE OF LUMBY
	647	WATER SURVEY OF CANADA (DOE) (CANADA)
	650	WEST KOOTENAY POWER
	655	WESTERN IRRIGATION DISTRICT
	660	WESTMINSTER POWER COMPANY
	665	WHITE EAGLE SILVER MINES LIMITED
	670	WHITE PASS AND YUKON ROUTE
	675	WINNIPEG ELECTRIC RAILWAY COMPANY
	705	ADM. DE LA VOIE MARITIME DU SAINT-LAURENT
	710	CITE DE MAGOG
	720	HYDRO-QUEBEC
	725	LA COMPAGNIE ALUMINIUM DU CANADA
	730	LA COMPAGNIE DOMINION TEXTILES LIMITEE
	735	LA COMPAGNIE PRICE LIMITEE
	740	MINISTERE DE L'ENVIRONNEMENT DU QUEBEC
	745	MINISTERE DES TRANSPORTS (CANADA)
	750	MINISTERE DES TRAVAUX PUBLICS (CANADA)
	753	SCIENCES ET LEVES OCEANIQUES (MPO) (CANADA)
	760	UNIVERSITE DE MONTREAL
	765	UNIVERSITE DU QUEBEC
	770	UNIVERSITE LAVAL
	775	UNIVERSITE MCGILL
	780	VILLE DE SHERBROOKE
	785	VILLE DE QUEBEC
	900	B.C. SEASONAL STATIONS
	901	ONT. MIN. OF THE ENV. AND MIN. OF NAT. RES.
	902	ONT. MIN. OF NAT. RES. AND ONT. HYDRO
	903	FEDERAL - OTHER FEDERAL
	904	FEDERAL - PRIVATE
	905	OTHER FEDERAL
	906	PRIVATE
	907	TIDES AND WATER LEVEL
	908	DOMAIN AND MANNES DRAIN PROJECT

ENVIRODAT/NAQUADAT GENERAL CODES AND DESCRIPTIONS

CODE TYPE	CODE	DESCRIPTION
COLLECTION	002	WEIRS AND/OR WATER STAGE RECORDERS
	003	AUTOMATIC PRECIPITATION SAMPLER
	004	PLASTIC RAIN GAUGE
	005	NIPHER SNOW GAUGE
	006	SHIPEK
	007	BOX CORER
	008	TORONTO GRAB
	009	BEACH CORER
	010	BENTHOS CORER
	011	ALPINE PISTON CORER
	012	ALPINE GRAVITY CORER
	013	PHLEGER CORER

ENVIRODAT/NAQUADAT GENERAL CODES AND DESCRIPTIONS

CODE TYPE	CODE	DESCRIPTION
LAB	0	NO DESCRIPTION
	00	UNSPECIFIED
	01	WATER QUALITY BRANCH, BURLINGTON
	02	WATER QUALITY BRANCH, MONCTON
	03	WATER QUALITY BRANCH, CALGARY
	04	NEWFOUNDLAND, PROVINCIAL LABORATORY
	05	NO DESCRIPTION
	06	PRINCE EDWARD ISLAND, PROVINCIAL LABORATORY
	07	NO DESCRIPTION
	08	NOVA SCOTIA, PROVINCIAL LABORATORY
	09	WATER QUALITY BRANCH, YELLOWKNIFE
	10	NO DESCRIPTION
	11	MINES BRANCH WATER ANALYSIS LABORATORY, OTTAWA
	12	NEW BRUNSWICK, PROVINCIAL LABORATORY
	13	NO DESCRIPTION
	14	QUEBEC, PROVINCIAL LABORATORY
	16	NO DESCRIPTION
	17	ONTARIO, PROVINCIAL LABORATORY
	18	NO DESCRIPTION
	20	MANITOBA, PROVINCIAL LABORATORY
	22	SASKATCHEWAN, PROVINCIAL LABORATORY
	23	NO DESCRIPTION
	26	ALBERTA, PROVINCIAL LABORATORY
	29	NO DESCRIPTION
	30	BRITISH COLUMBIA, PROVINCIAL LABORATORY
	32	NO DESCRIPTION
	35	NO DESCRIPTION
	36	CONSERVATION AND PROTECTION SERVICE LABORATORY, VANCOUVER
	37	NO DESCRIPTION
	38	NO DESCRIPTION
	39	KORAB MARINE LTD., LACHINE, P.Q.
	41	FRESHWATER INSTITUTE, WINNIPEG
	42	FISHERIES AND MARINE SERVICE, DOE, YELLOWKNIFE LABORATORY
	43	CANADA CENTRE FOR INLAND WATERS (CCIW), BURLINGTON
	44	GREAT LAKES FOREST RESEARCH CENTRE, SAULT STE. MARIE
	51	ENVIRONMENTAL CHEM. LAB, DIV. OF CLINICAL CHEM., VICTORIA GENERAL HOSP
	62	NO DESCRIPTION
	63	NO DESCRIPTION
	64	ENVIRONMENTAL PROTECTION SERVICE, DOE, HALIFAX
	66	NOVA SCOTIA TECHNICAL COLLEGE, HALIFAX
	67	NO DESCRIPTION
	68	ONTARIO REGION LABORATORY SERVICES, EPS, DOE, OTTAWA
	70	WATER QUALITY BRANCH, LONGUEIL
	71	SODEXEN INC., 2870 BLVD. INDUSTRIEL, LAVAL, QUEBEC
	72	NO DESCRIPTION
	78	NO DESCRIPTION
	80	FIELD
	81	IN SITU
	82	AUTOMATIC MONITOR
	90	NO DESCRIPTION
	91	NO DESCRIPTION
	99	UNSPECIFIED

ENVIRODAT/NAQUADAT GENERAL CODES AND DESCRIPTIONS

CODE TYPE	CODE	DESCRIPTION
METHOD	1	CALCULATED VALUE
	4	CALCULATED VALUE
	6	MEASURED IN GRADUATED CYLINDER
	7	CODED VALUES
	8	CALCULATED VALUE
	9	CALCULATED VALUE
	10	CALCULATED VALUE
	11	CALCULATED VALUE
	12	CALCULATED VALUE
	13	CALCULATED VALUE
	14	CALCULATED VALUE
	15	CALCULATED VALUE
	16	CALCULATED VALUE
	17	CALCULATED VALUE
	18	ALKA-SELTZER TABLET, LEAD ACETATE PAPER
	19	
	20	
	24	VISUAL COMPARISON
	25	SPECTROSCOPIC METHOD
	26	SPECTROPHOTOMETRY USING 425 MU FILTER, (FILTERED SAMPLE)
	27	KLETT-SOMERSON SPECTROPHOTOMETRIC METHOD
	28	COLORIMETRY ON AUTOANALYZER
	29	TRISTIMULUS FILTER, FISHER ELECTROPHOTOMETER II
	31	CLOSED FLOW CELL, PLATINUM ELECTRODE
	32	CONDUCTIVITY METER,PLATINUM ELECTRODES
	33	HYDROLAB MODEL TC-2 CONDUCTIVITY ,TEMPERATURE METER
	34	CALCULATED
	36	RADIOMETER CDM 83 AUTOMATIC RANGING CONDUCTIVITY METER
	37	CONDUCTIVITY METER WITH PT ELECTRODES
	38	MERCURY FILLED THERMOMETER
	39	BATTERY OPERATED YSI THERMISTOR
	40	
	42	BATTERY OPERATED HYDROLAB MODEL TC-2
	43	ELECTRONIC BATHYTHERMOGRAPH
	44	VISUAL METHOD
	45	HELLIGE TURBIDIMETER
	46	PHOTOMETRY ON HACH TURBIDIMETER
	48	SECCHI DISC
	49	SECCHI DISC
	51	SECCHI DISK
	52	PROTOMATIC UNDERWATER PHOTOMETER
	53	PHOTOMETER (LI-COR MODEL LI-185A)
	54	HACH RATIO TURBIDIMETER MODEL 18900
	55	
	56	MERCURY THERMOMETER
	57	COMBINATION PLATINUM ELECTRODE
	58	ATOMIC ABSORPTION BY DIRECT ASPIRATION
	59	FLAME PHOTOMETRY
	63	FLAME PHOTOMETRY
	64	INDUCTIVELY COUPLED ARGON PLASMA
	69	ATOMIC ABSORPTION WITH SOLVENT EXTRACTION
	77	ATOMIC ABSORPTION BY DIRECT ASPIRATION
	79	ATOMIC ABSORPTION WITH SOLVENT EXTRACTION
	80	ICAP - AAS
	82	ATOMIC ABSORPTION BY DIRECT ASPIRATION
	83	ATOMIC ABSORPTION SPECTROSCOPY
	84	COLORIMETRY
	85	DIRECT CURRENT PLASMA EMISSION SPECTROMETER
	86	MANNITOL POTENTIOMETRIC METHOD
	87	CURCUMIN METHOD
	88	AUTOMATED FLUORIMETRIC
	89	COLORIMETRY WITH 1,1-DIANTHRIMIDE
	90	COLORIMETRY WITH CARMINIC ACID
	91	COLORIMETRY ON AUTO ANALYZER WITH AZOMETHINE H.
	95	
	96	
	97	
	98	
	99	
	102	LOW LEVEL FLAME IONIZATION METHOD
	105	FLAME IONIZATION DETECTOR
	110	CHN ANALYZER, THERMAL COND. METHOD
	113	CALCULATED VALUE
	118	INFRARED ANALYSIS ,FIELD FILTERED SAMPLE
	119	COLOURIMETRIC ANALYSIS
	120	CALCULATED VALUE
	121	AUTOMATED LOSS OF CONDUCTIVITY METHOD
	123	DOHRMAN DC-80 CARBON ANALYSER

ENVIRODAT/NAQUADAT GENERAL CODES AND DESCRIPTIONS

CODE TYPE	CODE	DESCRIPTION
METHOD	129	PLASMA EMISSION SPECTROSCOPY (ICAP)
	131	INFRARED ANALYSIS, FIELD FILTERED SAMPLE
	132	CALCULATED VALUE
	133	CALCULATED VALUE
	134	CHN ANALYSER, THERMAL CONDUCTIVITY DETECTOR
	135	CALCULATED VALUE
	136	CALCULATED VALUE
	137	CALCULATED VALUE
	139	CALCULATED VALUE
	140	
	142	LECO CARBON ANALYSER, SEDIMENT SAMPLES
	143	TEMP. PROGRAMMED GLC WITH FI DETECTOR
	144	CAP. FID-GLC, THEN GC/MS
	145	FLUORESCENCE SPECTROPHOTOMETRY
	147	CALCULATED VALUE
	148	GRAVIMETRIC ANALYSIS
	149	GRAVIMETRIC ANALYSIS
	150	GRAVIMETRIC ANALYSIS
	151	INFRARED SPECTROPHOTOMETRY
	152	GRAVIMETRIC METHOD AFTER PET. ETHER/FREON EXTRACTION
	154	AUTOMATED 4-AMINOANTIPYRINE COLORIMETRIC METHOD
	157	4-AMINOANTIPYRINE COLORIMETRIC METHOD
	160	CHLOROFORM EXT. USING AMINO ANTIPYREN ASA REAGENT
	161	FLUORESCENCE SPECTROPHOTOMETRY
	162	RP-HPLC WITH A UV ABSORBANCE DETECTOR
	163	RP-HPLC WITH UV ABSORBANCE DETECTOR (SEDIMENT)
	164	COLORIMETRY (TUNGSTO- AND MOLYBDO-PHOSPHORIC ACID)
	166	COLORIMETRIC METHOD
	167	GAS CHROMATOGRAPHY
	175	UV SPECTROPHOTOMETRIC METHOD
	177	INFRARED ANALYSIS DUAL CHANNEL METHOD
	179	INFRARED ANALYSIS
	183	COLORIMETRY WITH CHROMOTROPIC ACID
	184	COLORIMETRY WITH PYRIDINE-PYRAZOLONE
	185	COLORIMETRY PYRIDINE-PYRAZOLONE
	186	ORION SPECIFIC ION ELECTRODE MODEL 94-06
	187	CHLORAMINE-T, PYRIDINE BARBITURIC ACID COLORIMETRY
	190	FILTERED, 9:1 ACETONE/ DEIONIZED WATER
	196	FLUOROMETRY
	197	FLUOROMETRY
	198	Colorimetry, Glass Fiber Filter, acetone-water ext. .
	200	
	201	
	204	Static methanol extraction, fluorimetry
	205	Fluorometry/spectrometry, acetone ext, mech. crushing.
	207	Filtered, Blended, centrifuged, fluorometry.
	208	Hexane ext., GLC- FID DETECTOR
	210	THERMAL CONDUCTIVITY METHOD.
	213	CALCULATED METHOD
	214	THERMAL CONDUCTIVITY, CARLO ERBA 1106 CHN ANALYZER
	216	CALCULATED RATIO
	217	DISTILLATION, TITRATION
	219	COLORIMETRICALLY (BERTHELOT METHOD)
	220	COLORIMETRY ON AUTO ANALYZER
	224	SEMI AUTOMATED , BERTHELOT REACTION
	225	AUTOMATED COLORIMETRIC,
	226	DIGESTION FOLLOWED BY TITRATION
	227	DIGESTION, ORION GAS SENSING ELECTRODE MODEL 95-10
	231	DIGESTION, COLORIMETRY, AUTOANALYZER
	233	DIGESTION, AUTOMATED COLORIMETRIC ANALYSIS
	235	COLORIMETRY ON AUTOANALYZER
	236	COLORIMETRY ON AUTOANALYZER
	239	COLORIMETRY ON AUTOANALYZER
	242	COLORIMETRY ON AUTOANALYZER
	243	COLORIMETRY ON AUTOANALYZER
	245	COLORIMETRY
	248	FIELD FILTERED, COLORIMETRY ON AUTOANALYZER
	251	SEMI-AUTOMATED COLORIMETRIC
	257	CALCULATED
	258	COLORIMETRY WITH BRUCINE-SULPHANILIC ACID REAGENT
	260	SPECTROPHOTOMETRIC METHOD
	261	COLORIMETRIC WITH CHROMOTROPIC ACID
	262	REDUCTION-DISTILLATION, NINHYPRIN COLORIMETRIC METHOD
	263	PHENOLDISULPHONIC ACID METHOD
	264	SELECTIVE ION ELECTRODE
	265	CADMIUM REDUCTION
	266	DEVARDAS ALLOY METHOD
	267	ION CHROMATOGRAPHY

ENVIRODAT/NAQUADAT GENERAL CODES AND DESCRIPTIONS

CODE TYPE	CODE	DESCRIPTION
METHOD	268	COLORIMETRIC WITH PHENOLDISULPHONIC ACID
	270	CALCULATED METHOD
	271	CALCULATED METHOD
	272	CALCULATED METHOD
	273	DUMAS METHOD, LECO MODEL UO-14SP NITROGEN ANALYSER
	276	DISTILLATION, NESSLERIZATION WITH VISUAL COMPARISON
	278	ION SELECTIVE ELECTRODE
	280	AUTOANALYZER METHOD
	283	DIRECT NESSLERIZATION
	284	COLORIMETRY ON AUTOANALYZER
	285	DISTILLATION, TITRATION
	288	MANUAL INDOPHENOL BLUE METHOD
	291	DISTILLATION, NINHYDRIN COLORIMETRIC PROCEDURE
	292	DISTILLATION, ABSORBANCE READ AT 625 MU
	298	CALCULATED METHOD
	299	CALCULATED METHOD
	300	UV DIGESTION, COLORIMETRY ON AUTOANALYZER
	301	CALCULATED METHOD
	302	CALCULATED METHOD
	305	CHN ANALYSER WITH THERMAL CONDUCTIVITY DETECTOR
	307	UV IRRADIATION, NO2/NO3 ANALYSIS
	311	WET CHEMISTRY,ABSORBANCE MEASUREMENT.(HAS BEEN AUTOMATED)
	316	CALCULATED METHOD
	318	THERMAL CONDUCTIVITY USING CARLO ERBA 1106 CHN ANALYSER
	320	CALCULATED METHOD
	321	CALCULATED METHOD
	324	WINKLER METHOD (AZIDE MODIFICATION)
	325	DISSOLVED OXYGEN METER
	326	HACH FIELD KIT
	327	IN SITU MEASUREMENT
	330	WINKLER METHOD (AZIDE MODIFICATION)
	331	
	343	POTASSIUM DICHROMATE METHOD
	345	POTASSIUM DICHROMATE, COLORIMETRIC METHOD
	346	SEMI AUTOMATED COLORIMETRIC, POTASSIUM DICHROMATE
	347	
	349	POTASSIUM PERMANGANATE METHOD
	350	PERMANGANATE METHOD
	351	CALCULATED METHOD
	352	VISUAL COLORIMETRIC DETERMINATION
	353	COLOURIMETRIC DETERMINATION WITH SPADNS
	354	AUTOMATED COLORIMETRIC WITH SPADNS
	355	DISTILLATION, COLORIMETRIC WITH SPADNS, AUTOANALYZER
	356	SPECIFIC ION ELECTRODE
	358	AUTOMATED POTENTIOMETRIC METHOD
	360	PHOTOMETRIC METHOD WITH (LA-ALIZARIN COMPLEX)
	361	PHOTOMETRIC METHOD USING AUTO ANALYZER
	362	SINGLE COLUMN ION CHROMATOGRAPHY
	363	POTENTIOMETRIC TITRATION
	364	TITRATION TO METHYL PURPLE ENDPOINT
	365	TITRATION TO BROMCRESOL GREEN-METHYL RED ENDPOINT
	366	METHYL ORANGE , AUTOANALYZER
	368	CO2 SEPARATION, IR DETECTOR
	369	TITRATION METHOD
	370	POTENTIOMETRIC TITRATION
	372	GRAN TITRATION
	373	TITRO PROCESSOR
	374	TITRATION HNO3, ELECTRICAL CONDUCTIVITY ENDPOINT DETN.
	376	VISUAL TITRATION
	377	ELECTROMETRIC TITRATION
	378	TITRATION TO BDH4.5 INDICATOR ENDPOINT (FIELD DETN.)
	379	POTENTIOMETRIC TITRATION
	380	TITRATION HNO3, ELECTRICAL CONDUCTIVITY ENDPOINT
	381	POTENTIOMETRIC TITRATION
	382	MANUAL TITRATION
	384	POTENTIOMETRIC TITRATION
	385	TITROPROCESSOR
	386	GRAPHICAL ESTIMATION METHOD
	387	TITRATION, ELECTRICAL CONDUCTIVITY ENDPOINT
	388	COLORIMETRIC METHOD
	389	ELECTROMETRIC METHOD
	392	MEASURED IN CLOSED SYSTEM
	393	COMBINATION GLASS ELECTRODE
	394	CALCULATED METHOD
	395	CALCULATED METHOD
	396	GRAVIMETRIC METHOD
	397	GRAVIMETRIC METHOD
	398	GRAVIMETRIC METHOD

CODE TYPE	CODE	DESCRIPTION
METHOD	399	GRAVIMETRIC METHOD
	401	GRAVIMETRIC METHOD
	402	GRAVIMETRIC MICRO-METHOD
	403	GRAVIMETRIC METHOD
	404	GRAVIMETRIC METHOD
	406	GRAVIMETRIC MICRO-METHOD
	407	GRAVIMETRIC METHOD
	408	GRAVIMETRIC METHOD
	410	CALCULATED METHOD
	411	GRAVIMETRIC METHOD
	412	GRAVIMETRIC METHOD
	413	GRAVIMETRIC METHOD
	414	GRAVIMETRIC METHOD
	415	CALCULATED METHOD
	416	GRAVIMETRIC METHOD
	417	CALCULATED METHOD
	418	GRAVIMETRIC METHOD
	419	GRAVIMETRIC METHOD
	420	GRAVIMETRIC METHOD
	421	GRAVIMETRIC METHOD
	422	CALCULATED METHOD
	423	CALCULATED METHOD
	424	EDTA TITRATION
	425	AUTOANALYZER USING EDTA AND CALMAGITE
	428	CALCULATED METHOD
	429	METHYLENE BLUE ACTIVE SUBSTANCES DETERMINATION
	431	
	432	POLAROGRAPHY
	433	GAS-LIQUID CHROMATOGRAPHY
	434	COLORIMETRIC METHOD
	435	CALCULATED METHOD
	436	BECKMAN INDUCTION SALINITY METER
	437	POTENTIOMETRIC TITRATION WITH SILVER NITRATE
	438	ATOMIC ABSORPTION SPECTROSCOPY
	440	PLASMA EMISSION SPECTROSCOPY
	441	DIRECT CURRENT PLASMA EMISSION SPECTROMETER
	444	ATOMIC ABSORPTION
	445	FLAME PHOTOMETRY
	448	ATOMIC ABSORPTION SPECTROSCOPY
	451	ION CHROMATOGRAPHY
	453	CALCULATED METHOD
	454	CALCULATED METHOD
	455	INDUCTIVELY COUPLED ARGON PLASMA SPECTROSCOPY
	457	X-RAY FLUORESCENCE SPECTROMETER
	458	COLORIMETRY
	459	ATOMIC ABSORPTION DIRECT ASPIRATION
	460	EDTA TITRATION
	463	CALCULATED METHOD
	465	EDTA TITRATION
	466	COLOURIMETRY BY AUTOANALYZER
	469	AUTOMATED ATOMIC ABSORPTION
	470	CALCULATED HARDNESS(T. HARDNESS - CA HARDNESS)
	479	ATOMIC ABSORPTION BY DIRECT ASPIRATION
	481	ATOMIC ABSORPTION SPECTROPHOTOMETRY BY GRAPHITE FURNACE
	484	
	486	ATOMIC ABSORPTION BY DIRECT ASPIRATION
	487	ATOMIC ABSORPTION BY DIRECT ASPIRATION
	488	COLOURIMETRY WITH FERRON
	491	COLOURIMETRY USING POWDERED REAGENTS
	493	ATOMIC ABSORPTION WITH SOLVENT EXTRACTION
	499	ATOMIC ABSORPTION BY DIRECT ASPIRATION
	504	ATOMIC ABSORPTION WITH GRAPHITE FURNACE
	511	COLOURIMETRY USING HETEROPOLY BLUE METHOD
	512	COLOURIMETRY USING HETEROPOLY BLUE METHOD(AUTOANALYZER)
	513	
	519	ATOMIC ABSORPTION BY DIRECT ASPIRATION
	520	COLOURIMETRIC(FORMATION OF MOLYBDENUM BLUE COMPLEX)
	522	GRAVIMETRIC DETERMINATION USING FUSION
	523	
	524	X-RAY DIFFRACTION SPECTROMETRY
	525	COLOURIMETRIC DETERMINATION OF AMMONIUM MOLYB. COMPLEX
	527	ESTIMATION BY DIFFERENCE BETWEEN TOT.PHOSP.AND INORG.PHOSP.
	528	COLOURIMETRIC DETERMINATION AFTER UV IRRADIATION
	531	DIGESTION & COLOURIMETRYWITH AUTOANALYZER(MOLYB. REACTION)
	532	COLOURIMETRY WITH AUTOANALYZER USING AMMONIUM MOLYBDATE
	533	COLOURIMETRY WITH AUTOANALYZER USING ASCORBIC ACID
	534	COLOURIMETRY USING ASCORB. ACID,H2S(O)4, AMMON.MOLYBDATE
	536	COLOURIMETRY ON AN AUTOANALYZER

ENVIRODAT/NAQUADAT GENERAL CODES AND DESCRIPTIONS

CODE TYPE	CODE	DESCRIPTION
METHOD	537	(FILTERED)COLOURIMETRY WITH STANNOUS CHLOR.& AMMON.MOLYB.
	538	COLOURIMETRY ON AN AUTOANALYZER
	539	COLOURIMETRY WITH AMMONIUM MOLYB. & STANNOUS CHLORIDE
	541	COLOURIMETRY WITH AMMON. MOLYBDATE & STANNOUS CHLORIDE
	546	COLOURIMETRY WITH AM.MOLYB.,AMINO NAPH.SULP.ACID&BIS.NITR.
	547	COLOURIMETRY WITH AMMONIUM MOLYBDATE, ETC.
	548	COLOURIMETRY WITH AMMONIUM MOLYB.,STANNOUS CHLOR.&H2SO4
	550	COLOURIMETRY WITH AMMON.MOLYB.,ASCORBIC ACID, ETC.
	552	CALCULATED AS DIFFERENCE BETWEEN T.DISS.P AND DISS.INOR.P
	554	COLOURIMETRY WITH AMMON.MOLB.,STANNOUS CHLOR. & H2SO4
	555	COLOURIMETRY WITH AMMON.MOLYB.& AMINONAPHTHOLSULPHONIC ACID
	556	COLOURIMETRY BY TECHNICON TRAACS ANALYZER(MOLYB.,SB,ASCOR.)
	558	COLOURIMETRY WITH AMMON. MOLYBDATE & STANNOUS CHLORIDE
	559	COLOURIMETRY WITH AMMON.MOLYB.,H2SO4,POT.ANTIMONYL TARTRATE
	561	COLOURIMETRY WITH AMMON.MOLYB.& AMINONAPHTHOLSULPHONIC ACID
	563	COLOURIMETRY(MOLYBDENUM BLUE COLOUR)
	564	COLOURIMETRY WITH AMMONIUM MOLYBDATE, ETC.
	566	COLOURIMETRY WITH AMMONIUM MOLYBDATE, ETC.
	567	COLOURIMETRY WITH AMMONIUM MOLYBDATE, ETC.
	570	COLOURIMETRY WITH AMMONIUM MOLYBDATE, ETC.
	575	COLOURIMETRY WITH AMMON.MOLYB. & ANSA REAGENT
	576	COLOURIMETRY WITH AMMON.MOLYB. AND STANNOUS CHLORIDE
	577	COLOURIMETRY USING STANNOUS CHLORIDE-MOLYBDATE REACTION
	579	TOTAL P CALCULATED AS SUM OF DISSOLVED & PARTICULATE PHOSP.
	580	COLOURIMETRY WITH AMMONIIUM MOLYD., HYDRAZINE, ETC.
	581	COLOURIMETRY WITH AMMONIUM MOLYBDATE & ASCORBIC ACID
	582	COLOURIMETRY WITH AMMON.MOLYB.,ANTIMONY, ASCORBIC ACID
	583	COLOURIMETRY WITH POTASSIUM ANTIMONY TART.& ASCORBIC ACID
	585	COLOURIMETRY(BLUE MOLYBDOPHOSPHORIC ACID COMPLEX)
	587	
	590	DIFFERENCE BETWEEN TOTAL PHOSP.& INORGANIC P.(NAIP+AIP)
	591	COLOURIMETRY (BLUE MOLYBDOPHOSPHORIC ACID ABSORBANCE)
	592	COLOURIMETRY WITH AMMONIUM MOLYBDATE AND ASCORBIC ACID
	593	COLOURIMETRY (HETEROPOLY-MOLYBDOPHOSPHORIC ACID COMPLEX)
	594	COLOURIMETRY(HETEROPOLY-MOLYBDOPHOSPHORIC ACID COMPLEX)
	595	COLOURIMETRY BASED ON HETEROPOLY-MOLYB.PHOPHOR.ACID COMPLEX
	597	AMMONIUM MOLYBDATE COLOURIMETRIC METHOD
	598	PART.PHOSP.=TOTAL PHOSP.- TOTAL DISSOLVED(SOLUBLE) PHOSP.
	600	COLOURIMETRY WITH AMMON.MOLYBDATE, ASCORBIC ACID, ETC.
	601	COLOURIMETRY WITH AMMON.MOLYBDATE, ASCORBIC ACID, H2SO4
	603	PART.INORG.PHOSP.=TOT.INORG.PHOSP.-DISS.INORG.(SOLU.)PHOSP.
	604	PART.ORG.PHOSP.=TOT.PART.PHOSP.-PARTICULATE INORG. PHOSP.
	606	SPECIFIC ION ELECTRODE (DIRECT MEASUREMENT)
	607	SPECIFIC ION ELECTRODE(IN CONJUNCTION WITH AGNO3 TITRATION)
	608	SILVER/SILVER SULPHIDE SPECIFIC ION ELECTRODE
	609	GRAVIMETRIC ANALYSIS
	610	GRAVIMETRIC ANALYSIS
	611	TURBIMETRIC ANALYSIS(BY PHOTOMETRY)
	612	TITRATION WITH BARIUM CHLORIDE IN ALCOHOL
	613	COLOURIMETRY BY AUTOANALYZER USING BARIUM CHLORIDE
	615	COLOURIMETRY ON AUTOANALYZER WITH BACL2 & METHYLTHYMOL BLUE
	617	ION CHROMATOGRAPHY
	618	COLOURIMETRY ON AUTOANALYZER WITH BARIUM CHLORIDE
	619	SINGLE COLUMN ION CHROMATOGRAPHY
	621	TITRATION OF THICSULPHATE ION WITH A 0.01N IODINE SOLUTION
	622	REACTION WITH MERCURIC CHLORIDE & SUBSEQUENT TITRATION
	623	TITRIMETRIC ANALYSIS
	624	COLOURIMETRIC ANALYSIS
	625	TITRATION WITH MERCURIC NITRATE & DIPHENYLCARBAZONE
	626	POTENTIOMETRIC TITRATION WITH SILVER NITRATE(AG/AGCL ELECT.)
	627	COLOURIMETRY ON AUTOANALYZER USING FE.NH4.(SO4)2 & HGSCN
	628	TITRATION WITH SILVER NITRATE AND POTASSIUM CHROMATE
	630	COLOURIMETRY ON AUTOANALYZER WITH FE(NO3)3 & HGSCN
	631	ION EXCHANGE METHOD
	634	TITRATION WITH MERCURIC NITRATE
	635	SINGLE COLUMN ION CHROMATOGRAPHY
	636	GAS CHROMATOGRAPHY
	637	HEAD SPACE ANALYSIS(ELECTRON CAPTURE GAS CHROMATOGRAPHY)
	643	GAS CHROMATOGRAPHY(ECD AND ELCD DETECTORS)
	658	CAPILLARY GC METHOD
	664	COLUMN/GAS-LIQUID CHROMATOGRAPHY
	666	COLUMN/GAS-LIQUID CHROMATOGRAPHY
	668	GAS CHROMATOGRAPHY(EC & FI DETECTORS)
	672	GAS CHROMATOGRAPHY (ECD)
	673	CAPILLARY GC METHOD (EC DETECTOR)
	675	COLUMN/GAS-LIQUID CHROMATOGRAPHY (ECD)
	677	CAPILLARY GC METHOD (ECD)
	680	SOLVENT EXTRACTION GAS/CHROMATOGRAPHY

ENVIRODAT/NAQUADAT GENERAL CODES AND DESCRIPTIONS

CODE TYPE	CODE	DESCRIPTION
METHOD	681	STEAM DISTILLATION; HIGH RESOLUTION CAPILLARY COLUMN GC
	708	GAS CHROMATOGRAPHY
	709	GAS CHROMATOGRAPHY
	718	COLUMN/GAS-LIQUID CHROMATOGRAPHY (ECD)
	719	COLUMN/GAS-LIQUID CHROMATOGRAPHY (ECD)
	721	CALCULATED FROM 18000,18005,18010,18020,18023 (L)
	722	COLUMN/GAS-LIQUID CHROMATOGRAPHY (ECD)
	733	CALCULATED FROM 18000,18004,18010,18020,18022,18025 (L),ETC.
	760	CALCULATED FROM VALUES STORED FOR HEPTACHLOR & ITS EPOXIDE
	780	CALCULATED FROM VALUES STORED FOR CHLORDANE AND ISOMERS
	786	COLUMN/GAS-LIQUID CHROMATOGRAPHY
	811	CALCULATED FROM VALUES STORED FOR ALDRIN AND DIELDRIN
	829	COLUMN/GAS-LIQUID CHROMATOGRAPHY
	843	GAS LIQUID CHROMATOGRAPHY WITH FLAME PHOTOMETRIC DETECTOR
	847	COLUMN/GAS-LIQUID CHROMATOGRAP.(NITROGEN-PHOSP. DETECTOR)
	873	PRE-CONCENTRATION(XAD-4 RESIN);GLC WITH FP DETECTOR.
	874	COLUMN/GLC WITH HALL ELECTROLYTIC CONDUCTIVITY DETECTOR
	875	PRECONCENTRATION(XAD-4RESIN);HPLC WITH FLUORESCENCE DETECT.
	882	EXTRACTION(MECL2);GLC WITH EC DETECTOR
	886	EXTRACTION WITH ETHYL ETHER;GLC WITH EC DETECTOR
	891	EXTRACTION; DERIVATIZATION(PFBBR);GLC WITH EC DETECTOR
	892	COLUMN/GAS-LIQUID CHROMATOGRAPHY;(C.F.18571);EC DETECTOR
	893	GAS/COLUMN-LIQUID CHROMATOGRAPHY
	900	EXTRACTION WITH CH2CL2; GLC WITH NITROGEN SPECIF.ALKAL.D'R.
	903	CALCULATED AS TOTAL OF 18415,18416,18420,18425,18430L, ETC.
	910	
	911	HIGH PRESSURE LIQUID CHROMATOG. WITH MULTI-DETECTOR SYSTEMS
	918	HIGH PRESSURE LIQUID CHROMATOG. WITH MULTIDETECTOR SYSTEMS
	926	EXTRACTION WITH ACETONE/HEXANE;COLUMN/GLC WITH EC DETECTOR
	928	EXTRACTION WITH MECL2;DERIVATIZATION(PFBBR);GLC WITH ECD
	936	EXTRACTION WITH ETHYL ACETATE & MCPB; COLUMN/GLC WITH ECD
	937	CALCULATED AS TOTAL OF 18500L,18510L,18520L, & 18530L
	938	EXTRACTION WITH MECL2;DERIVATIZATION(PFBBR);GLC WITH ECD
	951	EXTRACTION WITH CH2CL2; GLC WITH ALKALI FLAME DETECTOR
	952	EXTRACTION WITH MECL2;DERIVATIZATIO(PFBBR);COLUMN/GLC;ECD
	958	EXTRACTION WITH ETHYL ACETATE; DERIV.(PFBBR);COL./GLC; ECD
	980	GAS CHROMATOGRAPHY
	982	EXTRACTION WITH HEXANE;CONCENTRATION;HPLC;MULTIDETEC.SYST'S
	991	EXTRACTION;CONCENTRATION;HPLC WITH FLUORES.DET.(OR UV DET.)
	1007	HPLC,UV ABSORPTION AND FLUORESCENCE DETECTORS
	1019	HIGH PRESSURE LIQUID CHROMATOGRAPHY (HPLC)
	1024	GAS CHROMATOGRAPHY/MASS SPECTROMETRY
	1036	
	1038	CAP.COL. GC WITH FLAME IONIZATION DETECTOR
	1042	CALCULATED VALUE
	1048	FLAME PHOTOMETRY BY DIRECT INTENSITY MEASUREMENT
	1052	ATOMIC ABSORPTION BY DIRECT ASPIRATION
	1058	ATOMIC ABSORPTION SPECTROSCOPY
	1060	INDUCTIVELY COUPLED ARGON PLASMA
	1067	CALCULATED FROM CALCIUM HARDNESS
	1068	EDTA TITRATION WITH "CALVER II" INDICATOR
	1069	EDTA TITRATION WITH ERIOCHROME BLUE INDICATOR
	1070	ATOMIC ABSORPTION SPECTROSCOPY
	1072	CALCULATED FROM TOTAL HARDNESS AND MAGNESIUM VALUES
	1073	EDTA TITRATION WITH ERIOCHROME BLACK T INDICATOR
	1089	ATOMIC ABSORPTION BY DIRECT ASPIRATION
	1090	ATOMIC ABSORPTION WITH SOLVENT EXTRACTION
	1091	FLAMELESS ATOMIC ABSORPTION
	1095	ATOMIC ABSORPTION WITH SOLVENT EXTRACTION
	1098	ATOMIC ABSORPTION BY DIRECT ASPIRATION
	1107	ATOMIC ABSORPTION WITH SOLVENT EXTRACTION
	1112	COLORIMETRIC USING DIPHENYLCARBAZIDE
	1113	ATOMIC ABSORPTION BY DIRECT ASPIRATION
	1114	ATOMIC ABSORPTION WITH SOLVENT EXTRACTION
	1116	ATOMIC ABSORPTION BY DIRECT ASPIRATION
	1120	CALCULATED FROM CONCENTRATION AND FLOW
	1122	ATOMIC ABSORPTION AFTER SEDIMENT PRE-TREATMENT
	1123	ATOMIC ABSORPTION BY DIRECT ASPIRATION
	1127	COLORIMETRIC WITH DIPHENYLCARBAZIDE
	1128	ATOMIC ABSORPTION WITH SOLVENT EXTRACTION
	1132	ICAP METHOD, FILTERED SAMPLE
	1139	ATOMIC ABSORPTION WITH SOLVENT EXTRACTION
	1143	ATOMIC ABSORPTION SPECTROSCOPY
	1149	ATOMIC ABSORPTION WITH SOLVENT EXTRACTION
	1151	COLORIMETRIC METHOD, SODIUM BISMUTHATE AND NITRIC ACID.
	1159	SPOT TEST WITH TETRABASE
	1160	COLORIMETRIC WITH PERIODATE
	1161	ATOMIC ABSORPTION WITH DIRECT ASPIRATION

ENVIRODAT/NAQUADAT GENERAL CODES AND DESCRIPTIONS

CODE TYPE	CODE	DESCRIPTION
METHOD	1170	ATOMIC ABSORPTION SPECTROSCOPY
	1171	COLORIMETRIC WITH PERIODATE
	1172	ATOMIC ABSORPTION BY DIRECT ASPIRATION
	1180	COLOURIMETRY WITH TPTZ ON AN AUTOANALYZER
	1183	ATOMIC ABSORPTION WITH SOLVENT EXTRACTION
	1184	DIGESTION; COLOURIMETRY BY AUTOANALYZER WITH O-PHEN. METHOD
	1185	DIGESTION; MANUAL COLOURIMETRY WITH O-PHENANTHRO. METHOD
	1186	HACH TEST KIT
	1193	COLOURIMETRY WITH ALPHA,ALPHA-DIPYRIDYL
	1195	COLOURIMETRY WITH PHENANTHROLINE
	1196	ATOMIC ABSORPTION BY DIRECT ASPIRATION
	1198	SPOT TEST WITH TETRABASE
	1211	DETERMINATION WITH POTASSIUM THIOCYANATE
	1224	ATOMIC ABSORPTION WITH SOLVENT EXTRACTION
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ENVIRODAT/NAQUADAT GENERAL CODES AND DESCRIPTIONS

CODE TYPE	CODE	DESCRIPTION
METHOD	1500	
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	1667	GC/ATOMIC ABSORPTION SPECTROPHOTOMETER AT 217 MU.
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	1681	
	1682	BETA COUNTING WITH LOW BACKGROUND COUNTING SYSTEM
	1683	
	1684	SEE VMV CODE 48601
	1698	SCINTILLATION COUNTER
	1700	SCINTILLATION COUNTER
	1704	EDA RADON SCINTILLATION COUNTER
	1705	ALPHA SPECTROSCOPY OR GROSS ALPHA COUNTING
	1706	COUNTED ON SCINTILLATION COUNTER
	1711	COLORIMETRICALLY. ARSENAZO III.
	1712	INDUCTIVELY COUPLED PLASMA SPEC.
	1721	FLUORIMETRIC
	1722	FLUOROMETRY
	1723	
	1724	LASER-INDUCED FLUORESCENCE
	1725	DIRECT FLUORIMETRIC PROCEDURE
	1728	INDUCTIVELY COUPLED PLASMA SPEC.
	1730	CAP. COL. GC/MS, ADD NACL, METHYLENE CHLORIDE EXT.
	1759	CAP. COL. GC/MS., METHYLENE CHLORIDE EXT.

ENVIRODAT/NAQUADAT GENERAL CODES AND DESCRIPTIONS

CODE TYPE	CODE	DESCRIPTION
METHOD	1766	CAP. COL GC/MS,ACIDIFIED, METHYLENE CHLORIDE EXT.
	1774	HPLC, METHYLENE CHLORIDE EXT, UV DETECTOR AT 254NM.
	1775	HPLC,ACIDIFIED,METH. CHLORIDE EXT,UV DET. AT 220NM.
	1777	HPLC, UV ABSORBANCE DETECTOR AT 255NM.
	1778	HPLC, UV ABSORBANCE DETECTOR AT 310NM.
	1780	CAP. COL. GC-ECD,ACIDIFIED ACETIC ACID, METH. CHLORIDE EXT.
	1781	CAP. COL. GC-THERMIONIC SPECIFIC DET.
	1811	CAP. COL. GC/MS. SPIKED WITH SURROGATES.
	1867	PURGE AND TRAP CAP.COL. GC/MS,SPIKED WITH SURROGATES.
	1895	PURGE AND TRAP CAP.COL.GC/MS, SPIKED WITH SURROGATES.
	1930	CAP. GC/MS, WATER SPIKED WITH SURROGATE,METHYLENE CHLORIDE.
	1946	CAP. GC-ECD/MS, ACIDIFIED, METHYLENE CHLORIDE EXT
	1947	CAP. GC-ECD, LARGE VOLUME EXTRACTOR.
	1966	HPLC, METHYLENE CHLORIDE EXT.
	1970	CAP. GC/MS, ACIDIFICATION, ACETONE/HEXANE EXT, SEDIMENT
	1981	CAP. GC/MSD, DICHLOROMETHANE EXT.
	1997	CAP. GC-ECD, WATER,SURROGATE MIXTURE,DICHLOROMETHANE EXT.
	2003	CAP. GC-ECD, WATER + SURROGATE MIXTURE, LVX.
	2009	CAP. GC/ECD, LARGE VOLUME EXTRACTOR,
	2011	CAP. GC/MS, ACIDIFIED, LARGE VOLUME EXTRACTOR.
	2015	CAP. GC/MSD, LARGE VOLUME EXTRACTOR
	2040	COLUMN GAS/LIQUID CHROM., DICHLOROMETHANE EXT.
	2041	CAP. GC, OCTOCHLORONAPHALENE ADDED TO SEDIMENT EXT.
	2043	CAP GC/ECD., FINAL EXT. SPIKED WITH INTERNAL STANDARD.
	2045	CAP. GC/MS, HEXANE/ACETONE EXT, FOR SEDIMENT
	2055	CAP. GC/MS, ACIDIFIED, HEXANE/ACETONE EXT, FOR SEDIMENT
	2059	CAP. GC-ED. SED. SPIKED WITH SURROGATE MIXTURE.
	2065	CAP. GC/MSD. ACETONE/HEXANE 1:1, FOR SEDIMENT
	2081	
	2083	CAP.GC/MSD, ACETONE/HEXANE EXT, FOR SEDIMENT
	2104	CAP. GC, EC DET.,METHYLENE CHLORIDE EXT., FOR BIOTA.
	2131	CAP. GC/MSD, DICHLOROMETHANE EXT, FOR BIOTA
	2147	GC METHOD, ACETONE/HEXANE EXT,TWO FRACTIONS,FOR SEDIMENT
	2149	GC WITH EC DET.,ACETONE/HEXANE EXT ,FOR SEDIMENT
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ENVIRODAT/NAQUADAT GENERAL CODES AND DESCRIPTIONS

CODE TYPE	CODE	DESCRIPTION
METHOD	2227	
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	2250	
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	2366	EXTRACTION OF BIOTA SAMPLE WITH DCM & ANALYSIS BY GC

ENVIRODAT/NAQUADAT GENERAL CODES AND DESCRIPTIONS

CODE TYPE	CODE	DESCRIPTION
PRETREATMENT	B	FIELD FILTERED AND PRESERVED
	C	CENTRIFUGED
	F	FIELD FILTERED
	P	PRESERVED

ENVIRODAT/NAQUADAT GENERAL CODES AND DESCRIPTIONS

CODE TYPE	CODE	DESCRIPTION
PROVINCE	AK	ALASKA
	AL	ALBERTA
	AT	ALBERTA
	BC	BRITISH COLUMBIA
	BR	NEW BRUNSWICK
	CB	BRITISH COLUMBIA
	MA	MANITOBA
	ME	MAINE
	MI	MICHIGAN
	MN	MANITOBA
	MO	MINNESOTA
	MT	MONTANA
	NB	NEW BRUNSWICK
	ND	NORTH DAKOTA
	NF	NEWFOUNDLAND
	NH	NEW HAMPSHIRE
	NL	NEWFOUNDLAND
	NS	NOVA SCOTIA
	NV	NOVA SCOTIA
	NW	NORTH WEST TERRITORIES
	NY	NEW YORK
	OH	OHIO
	ON	ONTARIO
	PA	PENNSYLVANIA
	PE	PRINCE EDWARD ISLAND
	PQ	QUEBEC
	QU	QUEBEC
	SA	SASKATCHEWAN
	SK	SASKATCHEWAN
	US	UNITED STATES
	VT	VERMONT
	WA	WASHINGTON
	WI	WISCONSIN
	YT	YUKON TERRITORY

ENVIRODAT/NAQUADAT GENERAL CODES AND DESCRIPTIONS

CODE TYPE	CODE	DESCRIPTION
REGION	AT	WQB ATLANTIC
	HQ	HEADQUATERS
	ON	WQB ONTARIO
	PY	WQB PACIFIC & YUKON
	QU	IWD QUEBEC
	WN	WQB WESTERN & NORTHERN

ENVIRODAT/NAQUADAT GENERAL CODES AND DESCRIPTIONS

CODE TYPE	CODE	DESCRIPTION
SAMPLE_MATRIX	00	WATER
	20	WASTEWATER
	30	RAIN
	31	SNOW
	32	ICE (PRECIPITATED)
	33	MIXED PRECIPITATION
	34	DRY FALLOUT
	50	SEDIMENTS
	51	SUSPENDED SEDIMENTS
	59	SOIL
	60	AIR
	99	BIOTA

ENVIRODAT/NAQUADAT GENERAL CODES AND DESCRIPTIONS

CODE TYPE	CODE	DESCRIPTION
SAMPLE_TYPE	01	DISCRETE SAMPLE
	02	INTEGRATED SAMPLE
	03	DUPLICATE SAMPLE
	04	TRIPLICATE SAMPLE
	05	REPLICATE SAMPLE
	06	COMPOSITE SAMPLE
	07	SPLIT SAMPLE
	20	BLANK
	21	SPIKED SAMPLE
	22	FIELD BLANK
	23	LAB BLANK
	24	FIELD SPIKE
	25	LAB SPIKE
	26	FIELD DISTILLED
	27	LAB DISTILLED

ENVIRODAT/NAQUADAT GENERAL CODES AND DESCRIPTIONS

CODE TYPE	CODE	DESCRIPTION
STATION_TYPE	00	RIVER OR STREAM
	01	LAKE
	02	ESTUARY
	03	MARINE
	04	POND
	05	RESERVOIR
	06	HARBOUR
	10	GROUNDWATER
	14	WETLAND
	20	WASTEWATER - TREATED AND UNTREATED
	30	PRECIPITATION
	40	TREATED SUPPLY
	99	TERRESTRIAL STATION

ENVIRODAT/NAQUADAT GENERAL CODES AND DESCRIPTIONS

CODE TYPE	CODE	DESCRIPTION
TISSUE_TYPE	10001	NOT SPECIFIED
	10010	BRAIN
	10020	DIGESTIVE TRACT
	10030	FAT
	10040	FILLET
	10050	GONADS
	10060	HEART
	10070	LIVER
	10080	MUSCLE

ENVIRODAT/NAQUADAT GENERAL CODES AND DESCRIPTIONS

CODE TYPE	CODE	DESCRIPTION
UNIT	%	PERCENT
	G	GRAMS
	M	METRES
	CM	CENTIMETRES
	FT	FEET
	HR	HOURS
	KM	KILOMETRES
	MI	MILES
	ML	MILLILITRES
	MM	MILLIMETRES
	MV	MILLIVOLTS
	NO	NUMBER (NO UNITS)
	YR	YEARS
	% T	PERCENT TRANSMITTANCE
	CFS	CUBIC FEET/SECOND
	CM2	SQUARE CENTIMETRES
	G/L	GRAMS/LITRE
	JTU	JACKSON TURBIDITY UNITS
	KM2	SQUARE KILOMETRES
	KPA	KILOPASCALS
	L/S	LITRES/SECOND
	MIN	MINUTES
	NTU	NEPHELOMETRIC TURBIDITY UNITS
	PPB	PARTS PER BILLION
	PPM	PARTS PER MILLION
	VEC	VERTICAL EXTINCTION COEFFICIENT
	BQ/G	BECQUERELS/GRAM
	BQ/L	BECQUEREL/LITRE
	DAYS	DAYS
	HHMM	TIME IN HOURS AND MINUTES (MINUTES MAY NOT BE INCLUDED)
	M3/S	CUBIC METRES/SECOND
	MG/L	MILLIGRAMS/LITRE
	NG/G	NANOGRAMS/GRAM
	NG/L	NANOGRAMS/LITRE
	NO/L	NUMBER/LITRE
	PG/L	PICOGRAMS/LITRE
	SECS	SECONDS
	UG/G	MICROGRAMS/GRAM
	UG/L	MICROGRAMS/LITRE
	BQ/KG	BECQUEREL/KILOGRAM
	DEG C	DEGREES CELSIUS
	DM3/S	CUBIC DECIMETRES/SECOND
	G/CM3	GRAMS/CUBIC CENTIMETRE
	KM/HR	KILOMETRES/HOUR
	MEQ/L	MILLIEQUIVALENTS/LITRE
	MG/KG	MILLIGRAMS/KILOGRAM
	MG/M2	MILLIGRAMS/SQUARE METER
	MG/M3	MILLIGRAMS/CUBIC METRE
	MM HG	MILLIMETRES OF MERCURY (AT 0 DEGREES CELSIUS)
	NG/KG	NANOGRAMS/KILOGRAM
	NO/DL	NUMBER/DECILITRE
	NO/ML	NUMBER/MILLILITRE
	PG/KG	PICOGRAMS/KILOGRAM
	UEQ/L	MICROEQUIVALENTS/LITRE
	UG/KG	MICROGRAMS/KILOGRAM
	UG/M3	MICROGRAMS/CUBIC METRE
	DDMMYY	DATE
	KG/DAY	KILOGRAMS/DAY
	T.O.N.	THRESHOLD ODOUR NUMBER
	1000/ML	THOUSANDS/MILLILITRE
	GIGA/M2	GIGA COUNTS/SQUARE METRE
	USIE/CM	MICROSIEMENS/CM
	CELLS/ML	CELLS/MILLILITRE
	L/HA/DAY	LITRES/HECTARE/DAY
	MEGAJ/M2	MEGAJOULES/SQUARE METRE
	MG/M2/HR	MILLIGRAMS/SQUARE METER/HOUR
	MG/M3/HR	MILLIGRAMS/CUBIC METRE/HOUR
	ML/.25M2	MILLITRES/0.25 SQUARE METRES
	NO UNITS	QUANTITY OR CODE SPECIFIED WITHOUT UNITS
	PH UNITS	PH UNITS
	FZN UNITS	FORMAZIN UNITS
	HZN UNITS	HAZEN UNITS
	PHI UNITS	PHI UNITS
	REL UNITS	RELATIVE UNITS
	1000 GAL/D	THOUSANDS OF GALLONS/DAY
	DESCR CODE	DESCRIPTIVE ALPHANUMERIC CODE
	FT CANDLES	FOOT CANDLES
	G/L DRY WT	GRAMS/LITRE DRY WEIGHT

ENVIRODAT/NAQUADAT GENERAL CODES AND DESCRIPTIONS

CODE TYPE	CODE	DESCRIPTION
UNIT	MG/L DR WT	MILLIGRAMS/LITRE DRY WEIGHT

ENVIRODAT/NAQUADAT GENERAL CODES AND DESCRIPTIONS

CODE TYPE	CODE	DESCRIPTION
VALUE_TYPE	E	ESTIMATED VALUE
	M	MEAN OR MEDIAN OF SEVERAL ANALYTICAL DETERMINATIONS ON ONE SAMPLE
	N	N - NUMBER OF MEASUREMENTS FROM WHICH THE MEAN WAS CALCULATED
	R	REPLICATE VALUE
	V	VARIANCE OF MEAN
	RM	REPLICATE MEAN OF SEVERAL SAMPLES
	SD	STANDARD DEVIATION OF MEAN

1210 records selected.