MC252 Project Database

Data Dictionary

Christine Trefry
July 2011

Contents

Field Descriptions 3
All Tables 3
Individual Tables 3
Trip Data 3
Activity Log 5
Calibration Runs 6
Calibrations Raw Data 6
GCMS Raw data 7
GCMS Methods 7
Instruments 11
Oil Observations 11
Photographs 12
Project Reports 13
Sample List 13
Sonar Contacts 14
Vertical Casts 14
Cast Data 15
Sensor Log and Sonar Data 16
Lookup Tables 16
lstCalibrationtTypes 16
lstGCMS_AnalType 16
lstGCMS_SamplePrep 17
lstLabQualifiers 17
lstObsClass 17
lstObsTypes 18
lstSampleDepthRef 19
lstSampleMethod 20
lstSampleType 20

Field Descriptions

Field	*Description*	*Valid Values*	*Units*
All Tables (where exists)			
Cruise_ID or Cruise_Num	Designated number (integer) for a Cruise which spanned one or more Trips	1 to 15	
Trip_ID	Identifier for a trip comprising the MonthDay-year in the format mmdd-yyyy. Typically a Trip would span roughly 12 to 20 hours, not necessarily starting at a consistent time	0605-2010 to 0914-2010	
OID	Object ID – used in Mapping		
Individual Tables			
Trip Data Towed Fluorometry (sensor Underway) data. There will be a "TripData<cruise number>" table for each of the 15 cruises			
Project_ID	Code for the Project	MC252	
Cruise_ID	As above		
Trip_ID	As above		
ReadingDate	Acquisition date standardised to UTC time datum		Medium Date
ReadingTime	Acquisition time standardised to UTC time datum		Long Time
Date_UTC	Acquisition date in UTC time datum		Medium Date
Time_UTC	Acquisition time in UTC time datum		Long Time
Date_CDT	Acquisition date in Local time datum	* data may be in US date format	Medium Date
Time_CDT	Acquisition time in Local time datum		Long Time
PCDate	Acquisition date according to PC (set to UTC time datum)	* data may be in US date format	Medium Date
PCtime	Acquisition time according to PC (set to UTC time datum)		Long Time
Latitude	Latitude (Y)	30.6 to 26.5	decimal degrees
Longitude	Longitude (X)	-91.7 to -82.5	decimal degrees
Latitude2	Latitude (Y)		Deg and Min North
Longitude2	Longitude (X)		Deg and Min West
COG	Course over Ground	1 to 360	Degrees
SOG	Speed Over Ground	0 to 15	Knots
Status	GPS Status	A for Active	

Field	*Description*	*Valid Values*	*Units*
Temperature	Recorded Temperature	Not 9999 or 999 or blank	Deg Celsius
Flowrate	Recorded Flowrate of water in tank		mA (milli Amp)
Comment			
ReliabilityFlag	If point is reliable according to if location is on track or not	Y (yes) or N (no)	
TrackChecked	If point has been check for on track location	Y (yes) or N (no)	
DistanceToSite	Distance from XY point to Deepwater Horizon spill site	>0, -1 for unable to be calculated	Kilometres
Chelsea	PAH Fluorometer named Chelsea	Not -9999 or 9999 or 0 or blank	Volts
Trios	PAH Fluorometer named Trios	Not -9999 or 9999 or 0 or blank	Volts
Contros	PAH Fluorometer named Contros	Not -9999 or 9999 or 0 or blank	Volts
AW2	Volatile Semi Conductor named AW2 or AW40	Not -9999 or 9999 or 0 or blank	Count
Chelsea_Init_Conc1	CSIRO calculated concentration for Calibration Type 1	Not 0 or blank	µg/L (ppb)
Trios_Init_Conc1	CSIRO calculated concentration for Calibration Type 1	Not 0 or blank	µg/L (ppb)
Contros_Init_Conc1	CSIRO calculated concentration for Calibration Type 1	Not 0 or blank	µg/L (ppb)
AW2_Init_Conc1	CSIRO calculated concentration for Calibration Type 1	Not 0 or blank	Count
Chelsea_Init_CalibType1	Calibration Number, Calibration Type and Material used		text
Trios_Init_CalibType1	Calibration Number, Calibration Type and Material used		text
Contros_Init_CalibType1	Calibration Number, Calibration Type and Material used		text
AW2_Init_CalibType1	Calibration Number, Calibration Type and Material used		text
Chelsea_Init_Conc2	CSIRO calculated concentration for Calibration Type 2	Not 0 or blank	µg/L (ppb)
Trios_Init_Conc2	CSIRO calculated concentration for Calibration Type 2	Not 0 or blank	µg/L (ppb)
Contros_Init_Conc2	CSIRO calculated concentration for Calibration Type 2	Not 0 or blank	µg/L (ppb)
AW2_Init_Conc2	CSIRO calculated concentration for Calibration Type 2	Not 0 or blank	Count
Chelsea_Init_CalibType2	Calibration Number, Calibration Type and Material used		text
Trios_Init_CalibType2	Calibration Number, Calibration Type and Material used		text
Contros_Init_CalibType2	Calibration Number, Calibration Type and Material used		text
AW2_Init_CalibType2	Calibration Number, Calibration Type and Material used		text
Chelsea_Init_Conc3	CSIRO calculated concentration for Calibration Type 3	Not 0 or blank	µg/L (ppb)
Trios_Init_Conc3	CSIRO calculated concentration for Calibration Type 3	Not 0 or blank	µg/L (ppb)
Contros_Init_Conc3	CSIRO calculated concentration for Calibration Type 3	Not 0 or blank	µg/L (ppb)
AW2_Init_Conc3	CSIRO calculated concentration for Calibration Type 3	Not 0 or blank	Count
Chelsea_Init_CalibType3	Calibration Number, Calibration Type and Material used		text
Trios_Init_CalibType3	Calibration Number, Calibration Type and Material used		text
Contros_Init_CalibType3	Calibration Number, Calibration Type and Material used		text

Field	*Description*	*Valid Values*	*Units*
AW2_Init_CalibType3	Calibration Number, Calibration Type and Material used		text
Chelsea_Final_Conc1	left blank for User calculated concentration for Calibration Type 1	Not 0 or blank	µg/L (ppb)
Trios_Final_Conc1	left blank for User calculated concentration for Calibration Type 1	Not 0 or blank	µg/L (ppb)
Contros_Final_Conc1	left blank for User calculated concentration for Calibration Type 1	Not 0 or blank	µg/L (ppb)
AW2_Final_Conc1	left blank for User calculated concentration for Calibration Type 1	Not 0 or blank	Count
Chelsea_Final_CalibType1	Calibration Number, Calibration Type and Material used		text
Trios_Final_CalibType1	Calibration Number, Calibration Type and Material used		text
Contros_Final_CalibType1	Calibration Number, Calibration Type and Material used		text
AW2_Final_CalibType1	Calibration Number, Calibration Type and Material used		text
Chelsea_Final_Conc2	left blank for User calculated concentration for Calibration Type 2	Not 0 or blank	µg/L (ppb)
Trios_Final_Conc2	left blank for User calculated concentration for Calibration Type 2	Not 0 or blank	µg/L (ppb)
Contros_Final_Conc2	left blank for User calculated concentration for Calibration Type 2	Not 0 or blank	µg/L (ppb)
AW2_Final_Conc2	left blank for User calculated concentration for Calibration Type 2	Not 0 or blank	Count
Chelsea_Final_CalibType2	Calibration Number, Calibration Type and Material used		text
Trios_Final_CalibType2	Calibration Number, Calibration Type and Material used		text
Contros_Final_CalibType2	Calibration Number, Calibration Type and Material used		text
AW2_Final_CalibType2	Calibration Number, Calibration Type and Material used		text
Chelsea_Final_Conc3	left blank for User calculated concentration for Calibration Type 3	Not 0 or blank	µg/L (ppb)
Trios_Final_Conc3	left blank for User calculated concentration for Calibration Type 3	Not 0 or blank	µg/L (ppb)
Contros_Final_Conc3	left blank for User calculated concentration for Calibration Type 3	Not 0 or blank	µg/L (ppb)
AW2_Final_Conc3	left blank for User calculated concentration for Calibration Type 3	Not 0 or blank	Count
Chelsea_Final_CalibType3	Calibration Number, Calibration Type and Material used		text
Trios_Final_CalibType3	Calibration Number, Calibration Type and Material used		text
Contros_Final_CalibType3	Calibration Number, Calibration Type and Material used		text
AW2_Final_CalibType3	Calibration Number, Calibration Type and Material used		text
Activity Log Activities during the cruises			
Cruise_Num	As above		
Trip_ID	As above		
UTCDateFrom	Activity starting date in UTC time datum		Medium Date
UTCTimeFrom	Activity starting time in UTC time datum		Long Time
UTCDateTo	Activity ending date in UTC time datum		Medium Date
UTCTimeTo	Activity ending time in UTC time datum		Long Time

Field	*Description*	*Valid Values*	*Units*
LocalDate	Activity starting date in Local time datum		Medium Date
LocalTime	Activity starting time in Local time datum		Long Time
LatY_DD	Latitude (Y)	30.6 to 26.5	decimal degrees
LngX_DD	Longitude (X)	-91.7 to -82.5	decimal degrees
Activity	Short description of activity		
Comments	Other comments about activity		
DistanceToSite	Distance from XY point to Deepwater Horizon spill site	>0, -1 for unable to be calculated	Kilometres
Calibration Runs Details of calibrations applied to sensor data			
CalibRun_ID	Auto Number		
Calibration_No	Unique number - linking field to **tblCalibrations_RawData**		
CalibDate	Date of calibration		
Calibration_Set	Identifies who calibration was done by	Initial (CSIRO) or Final (left blank)	
Calibration_TypeNo	ID number for Calibration Type	See later **lstCalibrationTypes**	
Calibration_Type	Description of Calibration Type	See later **lstCalibrationTypes**	
Calibration_Material	Material used in calibration	MC252 or Carbazole or Toluene	
Calib_EqnType	Type of calibration equation	Linear or Exponential	
Calib_EquationToUse	Actual Equation	Eg "Conc = (SensorValue - Var2)/Var1"	
Comment			
Instr_ID	Id number of sensor instrument see **tblInstruments**	1 to 4	
Instrument_Name	Name of sensor instrument see **tblInstruments**	Chelsea, Trios, Contros or AW2	
Slope_Pt1	Slope variable 1 from calibration	Number	factor
Slope_Pt2	Slope variable 2 from calibration	Number	factor
Slope_Pt3	Slope variable 3 from calibration	Number	factor
Calibrations Raw Data Raw data used to determine calibration slope variables			
CalibData_ID	Auto Number		
Calibration_No	Calibration number related to **tblCalibrationRuns**		
Instrument_Name	Sensor instrument name		
Concentration	Concentration of sensor data		µg/L (ppb)
Voltage	Sensor raw data		Count for AW2 Volts for other sensors

Field	*Description*	*Valid Values*	*Units*
Cruise Trips Details of Cruises, Trips and total numbers of sensor data readings			
Cruise_Num	As above		
Trip_ID	As above		
UnderwayRecords	Number of sensor data records made for the Trip		
UTCDateFrom	Trip start Date in UTC time datum		Medium Date
UTCTimeFrom	Trip start Time in UTC time datum		Long Time
CDTDateFrom	Trip start Date in CDT time datum		Medium Date
CDTTimeFrom	Trip start Time in CDT time datum		Long Time
Comment	Comments on time changes etc		
GCMS Raw data GCMS data output from ChemStation			
IDnum	Auto Number		
Raw_ID	Identifier comprising <SampleID>_<set>_<prep type>_<anal type>		
SampleID	SampleID linked to **tblSampleList**		
SampleSet	Identifies where analysis was done	Initial (Field) or Final (Lab)	
Sample_Prep	How sample was prepared (LLE, SPE etc)	See later **lstGCMS_SamplePrep**	
Analysis_Type	How sample was analysed (GCMS-Sim, GCMS-Scan etc)	See later **lstGCMS_AnalType**	
Comp_Num	Output Order number of compound from ChemStation	1 to 121	
Analysis_date	Date sample analysed in UTC time datum		Date / Time
Compound_Name	Name of the Compound		
RetnTime	Retention time	Not 0	Minutes
Target_Response	Target Response (Peak Area)	Not 0	Area
Comp_Amount	Concentration of the Compound in the sample	Not 0	µg/L (ppb)
Method_ID	Identifier linked to the **tblGCMS_Method** table		
Lab_Qualifier	Qualifier of the data (U for Undetected etc)	See later **lstLabQualifiers**	
GCMS Methods Methods used to determine GCMS raw data			
OID	Auto number		
Method_ID	Identifier comprising <analysis>_ddmmyyyy	Like "SIM_16072010"	
DateOf	Date of method creation in UTC time datum		Medium Date
Analysis_Type	Shortened Analysis type	SIM or SCAN	
1 Methyl Naphthalene	Target retention Time for the Compound	Not 0 or blank	Minutes
2 Methyl Naphthalene	Target retention Time for the Compound	Not 0 or blank	Minutes

Field	*Description*	*Valid Values*	*Units*
1,2,3,6-TeMN	Target retention Time for the Compound	Not 0 or blank	Minutes
1,2,3,7-TeMN	Target retention Time for the Compound	Not 0 or blank	Minutes
1,2,3-Trimethylbenzene	Target retention Time for the Compound	Not 0 or blank	Minutes
1,2,4,6- + 1,2,4,7- + 1,4,6,7-TeMN	Target retention Time for the Compound	Not 0 or blank	Minutes
1,2,4-TMN	Target retention Time for the Compound	Not 0 or blank	Minutes
1,2,4-Trimethylbenzene	Target retention Time for the Compound	Not 0 or blank	Minutes
1,2,5,6- + 1,2,3,5-TeMN	Target retention Time for the Compound	Not 0 or blank	Minutes
1,2,5,7-TeMN	Target retention Time for the Compound	Not 0 or blank	Minutes
1,2,5-TMN	Target retention Time for the Compound	Not 0 or blank	Minutes
1,2,6,7-TeMN	Target retention Time for the Compound	Not 0 or blank	Minutes
1,2,6-TMN	Target retention Time for the Compound	Not 0 or blank	Minutes
1,2,7- + 1,6,7-TMN	Target retention Time for the Compound	Not 0 or blank	Minutes
1,2-Dimethylnaphthalene	Target retention Time for the Compound	Not 0 or blank	Minutes
1,2-DMP	Target retention Time for the Compound	Not 0 or blank	Minutes
1,3- + 3,9- + 3,10- + 2,10-DMP	Target retention Time for the Compound	Not 0 or blank	Minutes
1,3 +1,7-Dimethylnaphthalene	Target retention Time for the Compound	Not 0 or blank	Minutes
1,3,5- + 1,4,6-TMN	Target retention Time for the Compound	Not 0 or blank	Minutes
1,3,5-Trimethylbenzene	Target retention Time for the Compound	Not 0 or blank	Minutes
1,3,6,7-TeMN	Target retention Time for the Compound	Not 0 or blank	Minutes
1,3,6-TMN	Target retention Time for the Compound	Not 0 or blank	Minutes
1,3,7-TMN	Target retention Time for the Compound	Not 0 or blank	Minutes
1,3-Dimethyldibenzothiophene	Target retention Time for the Compound	Not 0 or blank	Minutes
1,4- + 2,3-Dimethylnaphthalene	Target retention Time for the Compound	Not 0 or blank	Minutes
1,5-Dimethylnaphthalene	Target retention Time for the Compound	Not 0 or blank	Minutes
1,6- + 1,8-Dimethyldibenzothiophene	Target retention Time for the Compound	Not 0 or blank	Minutes
1,6- + 2,9- + 2,5-DMP	Target retention Time for the Compound	Not 0 or blank	Minutes
1,6-Dimethylnaphthalene	Target retention Time for the Compound	Not 0 or blank	Minutes
1,7-DMP	Target retention Time for the Compound	Not 0 or blank	Minutes
1,8-DMP	Target retention Time for the Compound	Not 0 or blank	Minutes
1,9- + 1,2-Dimethyldibenzothiophene	Target retention Time for the Compound	Not 0 or blank	Minutes
1-Methyl-2-ethylbenzene	Target retention Time for the Compound	Not 0 or blank	Minutes
1-Methyl-3-ethylbenzene	Target retention Time for the Compound	Not 0 or blank	Minutes
1-Methyl-4-ethylbenzene	Target retention Time for the Compound	Not 0 or blank	Minutes
1-Methyldibenzothiophene	Target retention Time for the Compound	Not 0 or blank	Minutes

Field	*Description*	*Valid Values*	*Units*
1-Methylphenanthrene	Target retention Time for the Compound	Not 0 or blank	Minutes
2+1-Ethylnaphthalene	Target retention Time for the Compound	Not 0 or blank	Minutes
2-3-Methyldibenzothiophene	Target retention Time for the Compound	Not 0 or blank	Minutes
2,3- + 1,9- + 4,9- 4,10-DMP	Target retention Time for the Compound	Not 0 or blank	Minutes
2,3,6,7-TeMN	Target retention Time for the Compound	Not 0 or blank	Minutes
2,3,6-TMN	Target retention Time for the Compound	Not 0 or blank	Minutes
2,4-Dimethyldibenzothiophene	Target retention Time for the Compound	Not 0 or blank	Minutes
2,6- + 3,6-Dimethyldibenzothiophene	Target retention Time for the Compound	Not 0 or blank	Minutes
2,6-Dimethylnaphthalene	Target retention Time for the Compound	Not 0 or blank	Minutes
2,7-Dimethylnaphthalene	Target retention Time for the Compound	Not 0 or blank	Minutes
2,7-DMP	Target retention Time for the Compound	Not 0 or blank	Minutes
2-Methylphenanthrene	Target retention Time for the Compound	Not 0 or blank	Minutes
3,5- + 2,6-DMP	Target retention Time for the Compound	Not 0 or blank	Minutes
3,7- + 1,4-Dimethyldibenzothiophene	Target retention Time for the Compound	Not 0 or blank	Minutes
3-Ethylphenanthrene	Target retention Time for the Compound	Not 0 or blank	Minutes
3-Methylphenanthrene	Target retention Time for the Compound	Not 0 or blank	Minutes
4,6-Dimethyldibenzothiophene	Target retention Time for the Compound	Not 0 or blank	Minutes
4-ETDBT	Target retention Time for the Compound	Not 0 or blank	Minutes
4-Methyldibenzothiophene	Target retention Time for the Compound	Not 0 or blank	Minutes
9- + 2- +1-Ethylphenanthrene + 3,6-DMP	Target retention Time for the Compound	Not 0 or blank	Minutes
9-Methylphenanthrene	Target retention Time for the Compound	Not 0 or blank	Minutes
Acenaphthene	Target retention Time for the Compound	Not 0 or blank	Minutes
Acenaphthylene	Target retention Time for the Compound	Not 0 or blank	Minutes
Anthracene	Target retention Time for the Compound	Not 0 or blank	Minutes
Benz(a)anthracene	Target retention Time for the Compound	Not 0 or blank	Minutes
Benzo(b)fluoranthene	Target retention Time for the Compound	Not 0 or blank	Minutes
Benzo(k)fluoranthene	Target retention Time for the Compound	Not 0 or blank	Minutes
Benzo(ghi)perylene	Target retention Time for the Compound	Not 0 or blank	Minutes
Biphenyl	Target retention Time for the Compound	Not 0 or blank	Minutes
Chrysene	Target retention Time for the Compound	Not 0 or blank	Minutes
Dibenz(a,h)anthracene	Target retention Time for the Compound	Not 0 or blank	Minutes
Dibenzothiophene	Target retention Time for the Compound	Not 0 or blank	Minutes
Ethylbenzene	Target retention Time for the Compound	Not 0 or blank	Minutes
Fluoranthene	Target retention Time for the Compound	Not 0 or blank	Minutes

Field	*Description*	*Valid Values*	*Units*
Fluorene	Target retention Time for the Compound	Not 0 or blank	Minutes
iC13	Target retention Time for the Compound	Not 0 or blank	Minutes
iC14	Target retention Time for the Compound	Not 0 or blank	Minutes
iC15	Target retention Time for the Compound	Not 0 or blank	Minutes
iC16	Target retention Time for the Compound	Not 0 or blank	Minutes
iC18	Target retention Time for the Compound	Not 0 or blank	Minutes
Indeno(1,2,3,c,d)pyrene	Target retention Time for the Compound	Not 0 or blank	Minutes
iPB	Target retention Time for the Compound	Not 0 or blank	Minutes
m+p-Xylene	Target retention Time for the Compound	Not 0 or blank	Minutes
Naphthalene	Target retention Time for the Compound	Not 0 or blank	Minutes
Naphthalene-D8	Target retention Time for the Compound	Not 0 or blank	Minutes
nC10	Target retention Time for the Compound	Not 0 or blank	Minutes
nC11	Target retention Time for the Compound	Not 0 or blank	Minutes
nC12	Target retention Time for the Compound	Not 0 or blank	Minutes
nC13	Target retention Time for the Compound	Not 0 or blank	Minutes
nC14	Target retention Time for the Compound	Not 0 or blank	Minutes
nC15	Target retention Time for the Compound	Not 0 or blank	Minutes
nC16	Target retention Time for the Compound	Not 0 or blank	Minutes
nC17	Target retention Time for the Compound	Not 0 or blank	Minutes
nC18	Target retention Time for the Compound	Not 0 or blank	Minutes
nC19	Target retention Time for the Compound	Not 0 or blank	Minutes
nC20	Target retention Time for the Compound	Not 0 or blank	Minutes
nC21	Target retention Time for the Compound	Not 0 or blank	Minutes
nC22	Target retention Time for the Compound	Not 0 or blank	Minutes
nC23	Target retention Time for the Compound	Not 0 or blank	Minutes
nC24	Target retention Time for the Compound	Not 0 or blank	Minutes
nC25	Target retention Time for the Compound	Not 0 or blank	Minutes
nC26	Target retention Time for the Compound	Not 0 or blank	Minutes
nC27	Target retention Time for the Compound	Not 0 or blank	Minutes
nC28	Target retention Time for the Compound	Not 0 or blank	Minutes
nC29	Target retention Time for the Compound	Not 0 or blank	Minutes
nC30	Target retention Time for the Compound	Not 0 or blank	Minutes
nC31	Target retention Time for the Compound	Not 0 or blank	Minutes
nC32	Target retention Time for the Compound	Not 0 or blank	Minutes

Field	*Description*	*Valid Values*	*Units*
nC33	Target retention Time for the Compound	Not 0 or blank	Minutes
nC7	Target retention Time for the Compound	Not 0 or blank	Minutes
nC8	Target retention Time for the Compound	Not 0 or blank	Minutes
nC9	Target retention Time for the Compound	Not 0 or blank	Minutes
nPB	Target retention Time for the Compound	Not 0 or blank	Minutes
o-Xylene	Target retention Time for the Compound	Not 0 or blank	Minutes
Phenanthrene	Target retention Time for the Compound	Not 0 or blank	Minutes
Phenanthrene-D10	Target retention Time for the Compound	Not 0 or blank	Minutes
Phytane	Target retention Time for the Compound	Not 0 or blank	Minutes
Pristane	Target retention Time for the Compound	Not 0 or blank	Minutes
p-Terphenyl	Target retention Time for the Compound	Not 0 or blank	Minutes
Pyrene	Target retention Time for the Compound	Not 0 or blank	Minutes
Toluene	Target retention Time for the Compound	Not 0 or blank	Minutes
Toluene-D8	Target retention Time for the Compound	Not 0 or blank	Minutes
nC34	Target retention Time for the Compound	Not 0 or blank	Minutes
nC35	Target retention Time for the Compound	Not 0 or blank	Minutes
nC36	Target retention Time for the Compound	Not 0 or blank	Minutes
RF-<compound name>	Not used		
Instruments Details of sensor instruments used			
Inst_ID	Id number of the Instrument (order of reported sensor values)	1 to 4	
Instr_Type	Type of Instrument	(HC Fluorometer, Volatile)	
Instrument_Name	Name of the Instrument		
Inst_SR	Serial number/s details of instrument/s used with relevant dates		
Oil Observations Observations of oiling or other phenomena			
OID	As above		
Cruise_Num	As above		
Trip_ID	As above		
UTCStartDate	Observation starting date in UTC time datum		Medium Date
UTCStartTime	Observation starting time in UTC time datum		Long Time
CDTStartDate	Observation starting date in Local time datum		Medium Date
CDTStartTime	Observation starting time in Local time datum		Long Time
StartLatY	Latitude (Y) at Start time	30.6 to 26.5	decimal degrees

Field	*Description*	*Valid Values*	*Units*
StartLngX	Longitude (X) at Start time	-91.7 to -82.5	decimal degrees
UTCEndingDate	Observation ending date in UTC time datum		Medium Date
UTCEndingTime	Observation ending time in UTC time datum		Long Time
CDTEndingDate	Observation ending date in Local time datum		Medium Date
CDTEndingTime	Observation ending time in Local time datum		Long Time
EndLatY	Latitude (Y) at end time	30.6 to 26.5	decimal degrees
EndLngX	Longitude (X) at end time	-91.7 to -82.5	decimal degrees
DistanceToSite	Distance from XY point to Deepwater Horizon spill site	>0, -1 for unable to be calculated	Kilometres
Type1	Primary Observation Type (1 to 47)	See later **lstObsType**	
PrimaryTypeDesc	Primary Observation Type Description (Silver Sheen, Brown oil etc)	See later **lstObsType**	
Type1_Obs_Class	Primary Observation Class (S for Sheen, O for Oil on Surface etc)	See later **lstObsClass**	
Type2	Second Observation Type (1 to 47)	See later **lstObsType**	
SecondaryTypeDesc	Second Observation Type Description (Silver Sheen, Brown oil etc)	See later **lstObsType**	
Type2_Obs_Class	Second Observation Class (S for Sheen, O for Oil on Surface etc)	See later **lstObsClass**	
Type3	Third Observation Type (1 to 47)	See later **lstObsType**	
TertiaryTypeDesc	Third Observation Type Description (Silver Sheen, Brown oil etc)	See later **lstObsType**	
Type3_Obs_Class	Third Observation Class (S for Sheen, O for Oil on Surface etc)	See later **lstObsClass**	
Comments			
DistanceToSite	Distance from XY point to Deepwater Horizon spill site	Not null	Kilometres
Photographs Photographs taken during the cruises			
OID	As above		
Cruise_Num	As above		
Trip_ID	As above		
DATE_UTC	Date of Photograph in UTC time datum		Medium Date
Time_UTC	Time of Photograph in UTC time datum		Long Time
DATE_Local	Date of Photograph in CDT time datum		Medium Date
TIME_Local	Time of Photograph in CDT time datum		Long Time
LatY_DD	Latitude (Y)	30.6 to 26.5	decimal degrees
LngX_DD	Longitude (X)	-91.7 to -82.5	decimal degrees
Description			
LinkedImageName	Hyperlink to the Photo		
txtLinkedImageName	Used as hyperlink by the Map to the Photo		
ForLabel	Used as Label by the Map		

Field	*Description*	*Valid Values*	*Units*
DistanceToSite	Distance from XY point to Deepwater Horizon spill site	>0, -1 for unable to be calculated	Kilometres
Project Reports Reports produced during the cruises or related to the project			
OID	Auto Number		
Cruise_Num	As above		
Trip_ID	As above		
Latitude	Latitude (Y)	30.6 to 26.5	decimal degrees
Longitude	Longitude (X)	-91.7 to -82.5	decimal degrees
ReportDate	Date report was submitted		Medium Date
Description	Description of report		
LinkedFileName	Hyperlink to the Report file		
Sample List List of all Samples taken during the cruises			
OID	As above		
Cruise_Num	As above		
Trip_ID	As above		
SampleBottleID	ID of Sample in the form yymmdd<x> where x is an incrementing letter for each subsequent sample on the same day	NA = samples not analysed by GCMS	
Sampledby	Initials of who collected the Sample		
UTC_Date	Date of Sample in UTC time datum		Medium Date
SamplingStartTimeUTC	Time of Sample in UTC time datum		Long Time
LatY_DD	Latitude (Y)	30.6 to 26.5	decimal degrees
LngX_DD	Longitude (X)	-91.7 to -82.5	decimal degrees
Chelsea	Chelsea reading at the time of sampling		Volts
Trios	Trios reading at the time of sampling		Volts
Contros	Contros reading at the time of sampling		Volts
AW40	AW40/AW2 reading at the time of sampling		Count
AW40_Temp	AW40/AW2 temperature at the time of sampling		Deg Celsius * 100
Comments			
SampleDepth	Depth of sample		Metres
SampleMethod	Method of sampling (Cast, Underway etc)	See later **lstSampleMethod**	
SampleDepthRef	Relative depth of sample (Surface, Bottom Shallow etc)	See later **lstSampleDepthRef**	
SampleType	Type of Sample (Water, Mousse etc)	See later **lstSampleType**	
DistanceToSite	Distance from XY point to Deepwater Horizon spill site	>0, -1 for unable to be calculated	Kilometres

Field	*Description*	*Valid Values*	*Units*
Sonar Contacts Acoustic contacts made during the cruises			
OID	As above		
Cruise_Num	As above		
Trip_ID	As above		
DATE_UTC	Date of Contact in UTC time datum		Medium Date
Time_UTC	Time of Contact in UTC time datum		Long Time
DATE_Local	Date of Contact in CDT time datum		Medium Date
TIME_Local	Time of Contact in CDT time datum		Long Time
ContactID	ID assigned		
Contact_Source	Source of Image – CSIRO or C&C Technologies (in the field)		
LatY_DD	Latitude (Y)	30.6 to 26.5	decimal degrees
LngX_DD	Longitude (X)	-91.7 to -82.5	decimal degrees
Comment			
Contact_TYPE	Type of contact (Mid Water, Probable Seep etc)	See later **lstContactType**	
LinkedImageName	Hyperlink to image of Contact		
txtLinkedImageName	Used as hyperlink by the Map to image of Contact		
LinkedImageName_Repro	Hyperlink to Reprocessed image of Contact		
txtLinkedImageName_Repro	Used as hyperlink by the Map to Reprocessed image of Contact		
LinkedImageName_3D	Hyperlink to 3D image of Contact		
txtLinkedImageName_3D	Used as hyperlink by the Map to 3D image of Contact		
DistanceToSite	Distance from XY point to Deepwater Horizon spill site	>0, -1 for unable to be calculated	Kilometres
PermitBlock	Gulf of Mexico Lease Block name/number		
Vertical Casts Vertical casts done during the cruises			
OID	As above		
Cruise_Num	As above		
Trip_ID	As above		
Cast_ID	Identification code made up of Cruise number_Cast Number	6_1 to 15_11	
OverallCastNum	Incrementing number for Casts undertaken	1 to 91	
cast_No	Cast number within the Cruise	1 to 30	
depth	Total depth of the Cast		Metres
Cast_Type	Type of Cast	VC (vertical cast) or CTD	
UTCDate	Date of Cast in UTC time datum		Medium Date

Field	*Description*	*Valid Values*	*Units*
UTCTime	Time of Cast in UTC time datum		Long Time
DateLocal	Date of Cast in CDT time datum		Medium Date
TimeLocal	Time of Cast in CDT time datum		Long Time
LatY	Latitude (Y)	30.6 to 26.5	decimal degrees
LngX	Longitude (X)	-91.7 to -82.5	decimal degrees
LinkedImage	Hyperlink to image of the Cast		
comments			
Label	Text used for a Label by the Map		
txtLinkedImage	Used as hyperlink by the Map to image of the Cast		
DistanceToSite	Distance from XY point to Deepwater Horizon spill site	>0, -1 for unable to be calculated	Kilometres
Cast Data Data for each stop done during each Vertical Cast – averaged over the time on station			
OID	Auto Number		
Cast_ID	Identification code linked to **tblVerticalCasts**	6_1 to 15_11	
Depth	Depth of the stop		
DateUTC	Date of Cast in UTC time datum		Medium Date
Time_atDepth	Time of Cast stop depth in UTC time datum		Long Time
Time_ofReadings	Time of Cast data readings in UTC time datum		Long Time
Chelsea	Sensor value		Volts
Trios	Sensor value		Volts
Contros	Sensor value		Volts
AW2	Sensor value		Count
Temperature			Deg Celsius
Conductivity		Siemens per metre	S/m
Diss_Oxygen			Mg/L
Methane			µmol/L
Chelsea_Conc_TPHg			µg/L (ppb)
Trios_Conc_TPHg			µg/L (ppb)
Contros_Conc_TPHg			µg/L (ppb)
AW2_Conc_TPHg			Count
Sample_ID	GCMS SampleID if one was taken		
Total_aromatics	Not utilised for this project		
Total_Aliphatics	Not utilised for this project		

Sensor Log and Sonar Data – not included as they are probably not wanted in the BP Database

Sensor Log was taken by one operator only – for Cruises 6, 8 and 10 only, then discontinued. This data is not very relevant
Sonar data is just the track lines where acoustic readings were taken. This data is not worth transferring.

Lookup Tables

lstCalibrationtTypes Types of calibrations

Type_No	ID number of calibration Type
Calibration_Type	Description of Type

Type_No	Calibration_Type
1	Dissolved Oil
2	Entrained Oil
3	Single Analyte

lstContactType Sonar contact types

Contact_Type	Description of Type of Contact

Contact_Type
Bottom Contact
Bottom to Midwater contact
Bottom to Surface contact
Interesting Sea Floor Feature
Midwater Contact
Near Bottom Contact
Near Surface contact
Probable Seep
Surface contact

lstGCMS_AnalType GCMS analysis types

Analysis_Type	Type of Analysis

Analasis_Type
CG-FID
GC-ECD
GCMS-Scan
GCMS-Sim

lstGCMS_SamplePrep GCMS sample preparation types

Sample_Prep	Code for preparation type
PrepName	Description of Preparation

Sample_Prep	PrepName
LLE	Liquid Liquid Extract
P&T	Purge and Trap
SPE	Solid Phase Extract

lstLabQualifiers Data qualifiers for GCMS results

LabQual	1 letter code for the Qualifier
Qual_Name	Description of the Qualifier

LabQual	Qual_Name
A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns > 25%
S	Method of standard additions (MSA) used for calculation
U	Compound Not Detected
V	Overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

lstObsClass Class of observation

ObsClass	1 letter code for the Class
ClassName	Description of the Class

ObsClass_ID	ClassName
D	Debris
F	Fish/Mammals
N	Natural false positives
O	Oil on Surface

		S Sheen U Unclassified

lstObsTypes Type of observation

OID	ID number for the Observation Type
PrimaryTypeDesc	Description of the Observation Type
Obs_Class	Class ID for the Observation Type (links to lstObsClass table)

OID	PrimaryTypeDesc	Obs Class
1	Silver Sheen	S
2	Transparent Sheen	S
3	Orange Pancakes or Streamers	O
4	Brown oil	O
5	Spill Edge Source	U
6	Tarballs	O
7	Surface Suppression	U
8	Convergence Line	U
9	Convergence Zone	U
10	Gas Leak	U
11	Dull Sheen	S
12	Red - Orange Emulsion	O
13	Narrow Bands of Sheen	S
14	Light Sheen	S
15	Algae	N
16	Rainbow Sheen	S
17	Windrows of Sheen	S
18	Sheen off Wellhead	S
19	Oil on Shoreline	O
20	Oil Pooling	O
21	Intermittent Sheen	S
22	Orange Mousse	O
23	Brown Mousse	O
24	Sargassum	N
25	Weathered Mousse	O
26	Dolphin	F
27	Sea Turtle	F
28	Whale	F

29	WhaleShark	F
30	Black/Dark water (Possibly oil)	O
31	Convergence line /sargassum /white foam	U
32	Convergence line with sargassum	U
33	Foam	U
34	Hammerhead Shark	F
35	Jellyfish	F
36	Large areas of Brown discoloration	U
37	Leaves / Sticks	D
38	Marine debris	D
39	Possible oil in water (Black Spots)	O
40	Red Buoy	D
41	Red grass and twigs	D
42	Rig	D
43	Seaweed (unknown variety)	N
44	Unidentified contaminate/beige foam	U
45	White Particulate/Foam	U
46	White particulates with red sheen	U
47	Yellowish Particulate	U

lstSampleDepthRef Depth reference for Samples taken

SampleDepthRef	Code for depth reference
SampleDepthRefText	Description of the depth reference

SampleDepthRef	SampleDepthRefText
Bottom	Bottom of Water
Bottom Deep	Bottom of Deep Water
Bottom Shallow	Bottom of Shallow Water
Mid Deep	Mid of Deep Water
NA	Not Applicable
Surface	Surface of Water
Unknown	Unknown
Upper	Upper of Water
Upper Deep	Upper of Deep Water
Upper Shallow	Upper of Shallow Water

lstSampleMethod Sampling methods

SampleMethod	Method used to take the Sample	SampleMethod
		Bucket
		Cast
		CTD
		HandPole
		Test
		Underway
		Unknown

lstSampleType Type of sample taken

SampleType	Type of Sample taken	SampleType
		Mousse
		Oil
		Unknown
		Water