ARCHAEOLOGY DATA SERVICE

Explanation of project metadata terms for geophysics files deposited with the ADS

TERM	MEANING	EXAMPLE
ALL SURVEYS		
Survey Name	If your survey has an alternative title to the one provided during the creation of the project metadata, you can add it here.	A geophysical survey of the Big Field, Yorkshire.
Survey Index	Here you should add the identification number or code used internally for the survey and any related data.	Code
Description	Provide a brief description of the geophysical survey.	Description text
Survey Purpose	Please provide a brief description of the purpose of the geophysical survey.	Description text
Location Coordinates	Provide a map reference for the location of the survey. Please use an appropriate reference system LL (Latitude and Longitude) or OSGB (Ordnance Survey Great Britain) using numeric or decimal coordinates.	123450 678900 -1.0867410 53.962310
Location	If applicable provide a list of locational terms for the image. Each new term should be added in a new cell/row.	UK England North Yorkshire York
Survey Duration	Provide the start and end dates for the survey.	31/Jul/2013 – 02/Aug/2013
Copyright Holder	The copyright holder for the image. This can be either an individual and/or an organisation.	Brian Harvey Suffolk County Council Suffolk
Solid Geology	Please add the base geology for the location where the survey was carried out.	Carboniferous Limestone Boulder Clay Flamborough Chalk
Drift Geology	Here you should provide the overlying drift geology for the place where the geophysical survey was carried out.	River terrace deposits Glacial till Raised beach and marine deposit
Land Use	Provide the prevailing land use for the area being surveyed.	Arable Mixed Urban Park Churchyard

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Survey Type	Provide the type of geophysical survey carried out. N.B. Please take time to add the correct survey type as some methods require additional metadata which appears at the bottom of the form.	Fluxgate Gradiometer Resistivity
Instrumentation	Here you should provide specific information about the type and configuration of the geophysical instruments used during the survey.	Fluxgate Gradiometer: Bartington Grad 601-2 Resistivity Meter: RM85
Area Surveyed	Please record the area of ground covered during the survey.	100m2 1ha 1km
Grid Size	When data has been collected using data grids, the size of overall grid must be documented to allow for the correct computation of the data outputs. This should be recorded as a length and width and expressed in metres, hectares, or kilometres. **Please make sure you record the correct measurement system**.	100m x 50 metres
Method of Coverage	Here you should indicate how the survey area was covered and the data acquired: gridded data; line data; non-gridded data; scanning.	
Traverse Separation	Record the distance between each survey traverse. Typically when a regular grid is created, a series of parallel lines is used to demarcate the walked survey traverses along which data is collected. This should be expressed in metres. **N.B.** For some multi-sensor instruments a distinction between this *traverse separation* walked and the resulting *line separation* of the merged data lines from the different instruments must be recorded.	1m 2m
Reading Interval	This is the distance between each reading along a traverse. This should be expressed in metres	0.25m 0.5m 1m
Sampling Position	Record the exact location where data was recorded, whether within the grid squares or at grid corners.	0.5m in both directions from the SW grid corner
Line Sequence	This is used to record the way in which the grid was walked, typically this can be in parallel lines always in the same direction (uni-directional), or back and forth (zigzag/ bi-directional). This information is needed when processing the data in order to de-strip or de-stagger the output from the survey.	uni-directional parallel zigzag bi-directional
Resolution	This is used to record the spacing between each data point across the x and y axis. This information	1.0

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	can be the same as the 'Line separation' and 'Reading interval' (see above) but it may be necessary in some instances to record it for individual grids.	
Survey Direction	Here you should record the direction in which the first traverse was carried out and where subsequent traverses were located.	SSW NE
Description of File Formats	Please add any additional information about the file formats your survey uses.	Description text if needed
File names	A list of files names relating to this metadata	grid1.txt, grid2.txt, grid3.txt
Additional Remarks	Any additional remarks that may be important to the reuse the data.	
ELECTRO-MAGNETIC SURVEYS		
Coil Configuration	This field should be used to record the distance of the coils within the instrument used for the electromagnetic survey.	1.5 3.66
Recorded Component	The recorded electromagnetic component needs to be specified.	apparent conductivity apparent susceptibility in-phase quadrature
GROUND PENETRATING RADAR		
Antenna Information	For those surveys using pulse radar systems you should record the centre frequency of the antenna. Those using a stepped FM system, which typically include a multi-element array, should record the range of frequencies used. These should be expressed in MHz.	300 MHz 500 MHz 50-150 MHz
Time Delay	The time delay for the recording of the first reflection expressed in seconds.	0.987 s
Time Samplings Resolution	The resolution of the time sampling expressed in seconds.	1.23 s
Time Span	The maximum time span of the recording expressed in seconds.	10s
Average Subsurface Velocity	You should provide an estimate of the electromagnetic velocity in order allow the conversion of two-way travel times to depth. This should be expressed in m/ns.	0.06 m/ns

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Average Subsurface Note	Average Subsurface Velocity should be accompanied by a statement/note about how it was derived. For example, ground truthing and use of tabulated values, undertaking common midpoint survey (CMP) measurements, a test survey over a target of known depth, the use of reflection hyperbolas or applying migration tests.	
MAGNETOMETER		
Magnetic North	For magnetometer surveys it is important to provide the orientation of the coordinate system/grid in relation to Magnetic North. This is important when processing of data.	NE NNE
Instrument Drift	During any survey the magnetometer may exhibit evidence of a gradual change in its readings. If this is recorded on a regular basis (e.g. after the completion of each grid) it will be possible to process the data in fashion that compensates for this 'drift'. This is typically expressed in n/T.	1.0 0.2
RESISTIVITY SURVEY		
Electrode Configuration	Any responses from below ground features are heavily influenced by the configuration of electrodes used. It is therefore important to record this to allow for (re)processing of the data and a thorough (re)interpretation of the results.	Dipole-Dipole Wenner Twin electrode
Electrode Spacing	In order to process the data collected during a survey it is essential that the distance between electrodes is recorded.	0.5 1.2
Multiple Configurations	Earth resistance data can be recorded at each measurement location using different electrode configurations by means of a multiplexer. Any information from this sequence should be provided.	
MARITIME SONAR		
Average water velocity	The average water velocity during the survey in m/s	2 m/s
Sonar frequency	The frequency of the sonar in kHz	200kHz
Beam width at nadir	An estimate of the beam width gap in degrees at nadir	40

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Example of a metadata sheet for Geophysics files deposited with the ADS

All Survey Types	**Survey Name**		The Big Field, Yorkshire.
	Survey Index		1234
	Description		A geophysical survey of the Big Field, Yorkshire.
	Survey Purpose		To find roman fort
	Location Coordinates (expressed in LatLong/OSGB)		123450 678900
	Location		UK, England, North Yorkshire, York
	Survey Duration	**Start date**	31-Jul-13
		End date	02-Aug-13
	Copyright Holder	***Name***	Brian Harvey
		Organisation	Suffolk County Council
	Solid Geology		Carboniferous Limestone
	Drift Geology		River terrace deposits
	Land Use		Arable
	Survey Type		Resistivity
	Instrumentation	***Type***	RM85
		Name	Resistivity Meter
	Area Surveyed (include unit of measurement)		100m2
	Grid Size (include unit of	***Length***	100m
		Width	50m
	Method of Coverage		Single Traverse
	Traverse Separation		2m
	Reading Interval		0.25
	Sampling Position		0.5
	Line Sequence		parallel
	Resolution		1
	Survey Direction		SSW
	Description of File Formats		Description text if needed
	File names (place a comma between each name)		grid1.txt, grid2.txt, grid3.txt
	Additional Remarks		Description text if needed
Electro-magnetic	**Coil Configuration**		
	Recorded Component		
Ground Penetrating Radar	**Antenna Information**		
	Time Delay		
	Time Sampling Resolution		
	Time Span		
	Average subsurface velocity		
	Average subsurface note		
Magnetometer	**Magnetic north**		
	Instrument drift		
Resistance	**Electrode configuration**		Dipole-Dipole
	Electrode spacing		0.5
	Multiple configurations		information from this sequence
Maritime Sonar	**Average water velocity**		
	Sonar frequency		
	Beam width at nadir		