

Note: The following mnemonics and description apply to MRLAB version 4.4 and higher. The intent of the document is to promote understanding of the deliverables from MRLAB modules. Please note that the list contains general outputs but may differ for each specific processing/interpretation job. The document was created to the best of our knowledge and was last revised in November, 2008. Its contents are subject to change without notice.

GPI Curve Name	Unit	Description
Common Processing		
MBVIC	pu	MR Bulk Volume Irreducible from T2app
MBVICA	pu	MR Bulk Volume Irreducible from T2app, average of TWS and TWL echo trains
MBVICD	pu	MR Bulk Volume Irreducible from T2app, TW difference spectrum
MBVICH	pu	MR Bulk Volume Irreducible from T2app, high resolution spectrum
MBVICF1..6	pu	MR Bulk Volume Irreducible from frequency 1-6 T2app, TW average spectrum
MSBVIC	pu	MR Spectral Bulk Volume Irreducible from T2app
MSBVICF1..6	pu	MR Spectral Bulk Volume Irreducible from frequency 1-6 T2app
MBVMC	pu	MR Bulk Volume Movable from T2app
MBVMCA	pu	MR Bulk Volume Movable from T2app, average of TWS and TWL echo trains
MBVMCD	pu	MR Bulk Volume Movable from T2app, TW difference spectrum
MBVMCF1..6	pu	MR Bulk Volume Movable from frequency 1-6 T2app, average of TWS and TWL echo trains
MBVMCDF1..6	pu	MR Bulk Volume Movable from frequency 1-6 T2app, TW difference spectrum
MSBVMC	pu	MR Spectral Bulk Volume Moveable from T2app
MBWC	pu	MR Bound water from T2app
MBWCH	pu	MR Bound water from T2app, high resolution spectrum
MCBWC	pu	MR Clay Bound Water from T2app
MCBWCA	pu	MR Clay Bound Water from T2app, average of TWS and TWL echo trains
MCBWCD	pu	MR Clay Bound Water from T2app, TW difference spectrum
MCBWCF1..6	pu	MR Clay Bound Water from frequency 1-6 T2app, average of TWS and TWL echo trains
MCHIC	pu	MR Misfit of inversion for T2app
MCHICA	pu	MR Misfit of inversion for T2app, average of TWS and TWL echo trains
MCHICD	pu	MR Misfit of inversion for T2app, TW difference spectrum
MCHICH	pu	MR Misfit of inversion for T2app, high resolution spectrum
MCHICAF1..6	pu	MR Misfit of inversion for frequency 1-6 for T2app, average of TWS and TWL echo trains
MPERM	mD	MR Coates permeability from T2app
MPERMCA	mD	MR Coates permeability from T2app, average of TWS and TWL echo trains
MPERMCF1..6	mD	MR Coates permeability from frequency 1-6 T2app, average of TWS and TWL echo trains
MPHASC01..NN	rad	MR Phase for echo train 1-NN
MPHEC	pu	MR Effective porosity from T2app
MPHECA	pu	MR Effective porosity from T2app, average of TWS and TWL echo trains
MPHECF1..6	pu	MR Effective porosity for frequency 1-6 T2app, average of TWS and TWL echo trains
MPHSC	pu	MR Total porosity from T2app
MPHSCA	pu	MR Total porosity from T2app, average of TWS and TWL echo trains
MPHSCF1..6	pu	MR Total porosity for frequency 1-6 T2app, average of TWS and TWL echo trains
MPOC01..NNF1..6	pu	MR T2 individual frequency spectrum bin porosity for T2app, Bin 1- Bin NN
MPOC01..NN	pu	MR T2 spectrum bin porosity for T2app, Bin 1- Bin NN
MPPORC	pu	MR effective porosity T2 spectrum for T2app
MPPORCH	pu	MR effective porosity T2 spectrum for T2app, high resolution spectrum
MPPORCF1..6	pu	MR effective porosity T2 spectrum for frequency 1-6 for T2app
MSEC01..NN	pu	MR Sum of echoes for echo train 1 to NN
MT2EC01..NN	ms	MR estimated T2 value from SE for echo train 1 to NN
MTPORC	pu	MR total porosity T2 spectrum for T2app
MTPORCF1..6	pu	MR total porosity T2 spectrum from frequency 1-6 for T2app

T2 Domain Petrophysics		
T2GMPN1..3	ms	MR T2DOM T2 Geometric Mean, not HI corrected, model 1 -3
MBVIPN1..3	pu	MR T2DOM Bulk Volume Irreducible , not HI corrected, model 1 -3
MBVMPN1..3	pu	MR T2DOM Bulk Volume Movable, not HI corrected, model 1-3
MCBWPN1..3	pu	MR T2DOM Clay Bound Water, model 1-3
MPREMPN1..3	mD	MR T2DOM permeability, not HI corrected, model 1-3

Capillary Pressure		
<i>Capillary Pressure Analysis</i>		
MPCPCBC	psi	MR PC Capillary pressure curve for Brooks-Corey model
MPCPCTH	psi	MR PC Capillary pressure curve for 3-parameter Thomeer model
MPCPCT2	psi	MR PC Capillary pressure curve for 2-parameter Thomeer model
MPCSWBC	frac	MR PC Water/wetting phase saturation for Brooks-Corey model
MPCSWTH	frac	MR PC Water/wetting phase saturation for 3-parameter Thomeer model.
MPCSWT2	frac	MR PC Water/wetting phase saturation for 2-parameter Thomeer model
MPCPEBC	psi	MR PC Entry Pressure for Brooks-Corey model
MPCPEBH	psi	MR PC Entry Pressure for 3-parameter Thomeer model
MPCPET2	psi	MR PC Entry Pressure for 2-parameter Thomeer model
MPCCCBC	NA	MR PC Exponent for Brooks-Corey model
MPCCCTH	NA	MR PC Exponent for 3-parameter Thomeer model
MPCCCT2	NA	MR PC Exponent for 2-parameter Thomeer model
MPCSIBC	pu	MR PC fitting parameter for Brooks-Corey model
MPCSITH	pu	MR PC fitting parameter for 3-parameter Thomeer model
MPCSIT2	pu	MR PC fitting parameter for 2-parameter Thomeer model
MPCERBC	NA	MR PC Error in wetting phase saturation for fitting Brooks-Corey model to data.
MPCERTH	NA	MR PC Error in wetting phase saturation for fitting 3-parameter Thomeer model to data.
MPCERT2	NA	MR PC Error in wetting phase saturation for fitting 2-parameter Thomeer model to data.
<i>Saturation Analysis</i>		
MPSSHBC	frac	MR PC Water saturation as a function of height above fluid contact for Brooks-Corey model.
MPSSHTH	frac	MR PC Water saturation as a function of height above fluid contact for 3-parameter Thomeer model.
MPSSH2	frac	MR PC Water saturation as a function of height above fluid contact for 2-parameter Thomeer model .
MPSPHBC	psi	MR PC Capillary pressure as a function of height above fluid contact for Brooks-Corey model
MPSPHTH	psi	MR PC Capillary pressure as a function of height above fluid contact for 3-parameter Thomeer model.
MPSPH2	psi	MR PC Capillary pressure as a function of height above fluid contact for 2-parameter Thomeer model .
MPSWHBC	pu	MR PC Water/wetting phase volume as a function of height above fluid contact for Brooks-Corey model.
MPSWHTH	pu	MR PC Water/wetting phase volume as a function of height above fluid contact for 3-parameter Thomeer model.
MPSWH2	pu	MR PC Water/wetting phase volume as a function of height above fluid contact for 2-parameter Thomeer model .
MPSSRBC	frac	MR PC Irreducible water/wetting phase saturation for Brooks-Corey model at fixed capillary pressure of 200 psi.
MPSSRTH	frac	MR PC Irreducible water/wetting phase saturation for 3-parameter Thomeer model at fixed capillary pressure of 200 psi.
MPSSR2	frac	MR PC Irreducible water/wetting phase saturation for 2-parameter Thomeer model at fixed capillary pressure of 200 psi.
<i>Permeability Analysis</i>		
MPERM	mD	MR PC Absolute permeability.
MPKKRBCW	frac	MR PC Relative permeability curve for wetting phase for Brooks-Corey model.
MPKKRTHW	frac	MR PC Relative permeability curve for wetting phase for 3-parameter Thomeer model
MPKKRT2W	frac	MR PC Relative permeability curve for wetting phase for 2-parameter Thomeer model
MPKKRBCN	frac	MR PC Relative permeability curve for non-wetting phase for Brooks-Corey model
MPKKRTHN	frac	MR PC Relative permeability curve for non-wetting phase for 3-parameter Thomeer model
MPKKRT2N	frac	MR PC Relative permeability curve for non-wetting phase for 2-parameter Thomeer model .
MPKKZBCW	frac	MR PC Relative permeability for wetting phase at saturation given by MPKSZBCK
MPKKZTHW	frac	MR PC Relative permeability for wetting phase at saturation given by MPKSZTHK
MPKKZT2W	frac	MR PC Relative permeability for wetting phase at saturation given by MPKSZT2K
MPKKZBCN	frac	MR PC Relative permeability for non-wetting phase at saturation given by MSZBCKP
MPKKZTHN	frac	MR PC Relative permeability for non-wetting phase at saturation given by MSZTHKP
MPKKZT2N	frac	MR PC Relative permeability for non-wetting phase at saturation given by MSZT2KP
MPKSZBCK	frac	MR PC Water/wetting phase saturation at which MPKKZBCW and MPKKZBCN are computed.

MPKSZTHK	frac	MR PC Water/wetting phase saturation at which MPKKZTHW and MPKKZTHN are computed.
MPKSZT2K	frac	MR PC Water/wetting phase saturation at which MPKKZT2W and MPKKZT2N are computed.

DMTW		
MPHIT	pu	MR DMTW total porosity
MDMRT	pu	MR DMTW weighted porosity of density and NMR
MPHSTS	pu	MR DMTW total porosity from short TW echo train
MPHSTL	pu	MR DMTW total porosity from long TW echo train
MSGFT	frac	MR DMTW flushed zone total gas saturation
MSOFT	frac	MR DMTW flushed zone total oil saturation
MSLFT	frac	MR DMTW flushed zone total liquid saturation
MVGFT	pu	MR DMTW flushed zone gas porosity
MVOFT	pu	MR DMTW flushed zone oil porosity
MVLFT	pu	MR DMTW flushed zone liquid porosity
MPHITC	pu	MR DMTW normalized total porosity. MPHITC is the greater of NMR total porosity and MPHIT
MPHET	pu	MR DMTW effective porosity
MBVMT	pu	MR DMTW moveable porosity
MBVWT	pu	MR DMTW effective water porosity
MPERMT	mD	MR DMTW permeability index
MPHIT ###	pu	MR DMTW total porosity from individual frequency echo trains
MDMRT ###	pu	MR DMTW weighted porosity of density and NMR from individual frequency echo trains
MPHSTS ###	pu	MR DMTW total porosity from individual frequency short TW echo train
MPHSTL ###	pu	MR DMTW total porosity from individual frequency long TW echo train
MSGFT ###	frac	MR DMTW flushed zone total gas saturation from individual frequency echo trains
MSOFT ###	frac	MR DMTW flushed zone total oil saturation from individual frequency echo trains
MVGFT ###	pu	MR DMTW flushed zone gas porosity from individual frequency echo trains
MVLFT ###	pu	MR DMTW flushed zone liquid porosity from individual frequency echo trains

MGTE		
MGLM1..6	ms	MR MGTE Geometric mean of T2app of hydrocarbon for GTE 1 to 6
MVLM	pu	MR MGTE Hydrocarbon volume
MKINDM01..6	pu	MR MGTE T2 bin number above which hydrocarbon volumetric computation starts for GTE 1 to 6
MPPORM1..6	pu	MR MGTE T2 spectrum for GTE 1 to 6
MT2DM1..6	ms	MR MGTE water diffusivity induced decay corresponding to a specific tool gradient
MT2IM	ms	MR MGTE Intrinsic T2 of the hydrocarbon component
MVISM	cP	MR MGTE hydrocarbon viscosity value
MEDM	ms	MR MGTE upper limit of water T2 at the given GTE value
MSESTM1..6	pu	MR MGTE sum of echoes from Stacked Data 1 to 6

SIMET		
MPHSS	pu	MR SIMET total porosity
MCBWS	pu	MR SIMET Clay Bound Water
MBVIWS	pu	MR SIMET Bulk Volume Irreducible
MBVMWS	pu	MR SIMET Bulk Volume Movable Water
MPHWS	pu	MR SIMET water porosity
MPHOS	pu	MR SIMET oil porosity
MPHGS	pu	MR SIMET Gas porosity
MPHES	pu	MR SIMET effective porosity
MBVMS	pu	MR SIMET Bulk Volume Movable
MSESTS01..NN	pu	MR SIMET Sum of Echoes from Stacked data for echo train 1 to NN
MT2AS	pu	MR SIMET T2app spectrum
MSWTS	frac	MR SIMET total water saturation
MSOTS	frac	MR SIMET total oil saturation
MSGTS	frac	MR SIMET total gas saturation
MRTTS	NA	MR SIMET T ₁ /T ₂ ratio for CBW, water, oil and gas
MDNTS	cm ² /s	MR SIMET diffusivity for CBW, water, oil and gas
MT2CS	pu	MR SIMET T2 intrinsic spectrum for Clay Bound Water
MT2WS	pu	MR SIMET T2 intrinsic spectrum for water
MT2OS	pu	MR SMET T2 intrinsic spectrum for oil
MT2GS	pu	MR SIMET T2intrinsic spectrum for gas
MVISS	cP	MR SIMET oil viscosity
MPHEWS	pu	MR SIMET effective water porosity
MPHEWOS	pu	MR SIMET effective porosity, water+oil
SGO	frac	MR SIMET total hydrocarbon saturation, oil+gas
MSOGTS	frac	MR SIMET total hydrocarbon saturation, oil+gas
MPERMS	mD	MR SIMET permeability index

R-T2		
MCABVI	ms	MR RT2 T2 BVI Cutoff curve
MCACBW	ms	MR RT2 T2 CBW Cutoff curve
MCGTRM	NA	MR RT2 T1/T2 Ratio Minimum, Gas
MCGTIX	ms	MR RT2 T1 Maximum, Gas
MCGT1M	ms	MR RT2 T1 Minimum, Gas
MCHIRN01..NN	pu	MR RT2 misfit chi for echo train 1 to NN
MFGTRN1	NA	MR RT2 Gas Flag NMR gas signal exceeds 1 STD
MFGTRN2	NA	MR RT2 Gas Flag NMR gas signal exceeds 2 STD
HICORR	pu	MR RT2 amount of gas hydrogen index correction
MHGTRN	NA	MR RT2 hydrogen index of gas
MBVIRN	pu	MR RT2 bulk volume irreducible
MBVMRC	pu	MR RT2 bulk volume moveable, HI corrected
MBVMRN	pu	MR RT2 bulk volume movable, not HI corrected
MVGTRC	pu	MR RT2 gas volume, HI corrected
MVGTRN	pu	MR RT2 gas volume, not HI corrected
MVLTRC	pu	MR RT2 movable liquid volume, HI corrected
MVLTRN	pu	MR RT2 movable liquid volume, not HI corrected
MBWRC	pu	MR RT2 bound water, HI corrected
MBWRN	pu	MR RT2 bound water, not HI corrected
MCBWRC	pu	MR RT2 Clay Bound Water, HI corrected
MCBWRN	pu	MR RT2 Clay Bound Water, not HI corrected
MPERMRC	mD	MR RT2 Permeability, HI corrected
MPERMNR	mD	MR RT2 Permeability, not HI corrected
MPHERC	pu	MR RT2 effective porosity, HI corrected
MPHERNL	pu	MR RT2 effective liquid porosity, not HI corrected
MPHERN	pu	MR RT2 effective porosity, not HI corrected
MPHSRC	pu	MR RT2 total porosity, HI corrected
MPHSRNL	pu	MR RT2 total liquid porosity, not HI corrected
MPHSRN	pu	MR RT2 total porosity, not HI corrected
MSGTRC	frac	MR RT2 total gas saturation, HI corrected
MSGTRN	frac	MR RT2 total gas saturation, not HI corrected
MSLTRC	frac	MR RT2 total liquid saturation, HI corrected
MSLTRN	frac	MR RT2 total liquid saturation, not HI corrected
MT12D1		MR RT2 2-D plots with 0.25 ft vertical pixel size display
MT12D2		MR RT2 2-D plots with 0.5 ft vertical pixel size display
MT12D3		MR RT2 2-D plots with 1 ft vertical pixel size display
MT12D4		MR RT2 2-D plots with 2 ft vertical pixel size display
MT12D5		MR RT2 2-D plots with 4 ft vertical pixel size display
T1GMARC	ms	MR RT2 Geometric mean of HI corrected T1 spectrum, HI-corrected
T1GMARN	ms	MR RT2 Geometric mean of HI corrected T1 spectrum, not HI corrected
T2GMARC	ms	MR RT2 Geometric mean of HI corrected T2 spectrum, HI-corrected
T2GMARN	ms	MR RT2 Geometric mean of HI corrected T2 spectrum, not HI corrected
MT1RC		MR RT2 properties of T1RBSET matrix
T1RBSET		MR RT2 array with T2 and R bin settings: Bin1T2, BinNT2, Bin1R, BinNR.
MT1SPRN0	pu	MR RT2 T1 Spectra no HI correction, no zero padding
MT1SPRC0	pu	MR RT2 T1 Spectra HI corrected, no zero padding
MT1SPRN1	pu	MR RT2 T1 Spectra no HI correction, zero padded
MT1SPRC1	pu	MR RT2 T1 Spectra HI corrected, zero padded
MT2SPRN0	pu	MR RT2 T2 Spectra no HI correction, no zero padding
MT2SPRC0	pu	MR RT2 T2 Spectra HI corrected, no zero padding
MT2SPRN1	pu	MR RT2 T2 Spectra no HI correction, zero padded
MT2SPRC1	pu	MR RT2 T2 Spectra HI corrected, zero padded
T1T2RES		MRLAB2D-T1 output results time index structure curve, not deliverable

2DNMR D-T2int		
MCHID01..NN	pu	MR DT2 misfit chi for echo train 1 to NN
MDFSPD	pu	MR DT2 total porosity distribution over diffusivity spectrum
MBVID	pu	MR DT2 Bulk Volume Irreducible
MBVMWD	pu	MR DT2 Bulk Volume Movable Water
MCBWD	pu	MR DT2 Clay Bound Water
MPHSD	pu	MR DT2 total porosity
MTARD	pu	MR DT2 tar porosity
MSCBWD	frac	MR DT2 total CBW saturation
MSETD	frac	MR DT2 total ETC saturation
MSGTD	frac	MR DT2 total gas saturation
MSHTD	frac	MR DT2 total heavy oil saturation
MSLOD	frac	MR DT2 total light oil saturation
MSMOD	frac	MR DT2 total medium oil saturation
MSTTD	frac	MR DT2 total tar saturation
MSBVD	frac	MR DT2 BVI saturation
MSWTD	frac	MR DT2 Bulk Volume Movable Water saturation
MT2DD	pu	MR DT2 T2int-diffusivity spectral matrix
MT2LD		MR DT2 properties of T2int-diffusivity spectral matrix
MT2ID	pu	MR DT2 total porosity distribution over intrinsic T2 spectrum
MVETD	pu	MR DT2 ETC porosity
MVGSD	pu	MR DT2 gas porosity
MVISHOD	cP	MR DT2 viscosity of heavy oil
MVISLOD	cP	MR DT2 viscosity of light oil
MVISMOD	cP	MR DT2 viscosity of medium oil
MVHOD	pu	MR DT2 heavy oil porosity
MVLOD	pu	MR DT2 light oil porosity
MBVMD	pu	MR DT2 movable porosity , MBVMD=MPHED-MBVID
MBVWD	pu	MR DT2 total water porosity, MCBWD+MBVWED
MBVWED	pu	MR DT2 effective water porosity
MBVWLO	pu	MR DT2 effective water porosity + light oil
MBVWLMO	pu	MR DT2 effective water porosity + light oil + medium oil
MBVWLMHO	pu	MR DT2 effective water porosity + light oil + medium oil + heavy oil
MBVWO	pu	MR DT2 effective water porosity + light oil + medium oil + heavy oil + tar
MBVWOG	pu	MR DT2 effective water porosity + light oil + medium oil + heavy oil + tar + gas
MBVWOGE	pu	MR DT2 effective water porosity + light oil + medium oil + heavy oil + tar + gas + ETC
MPHED	pu	MR DT2 effective porosity, MPHED=MPHSD - MCBWD
SWED	frac	MR DT2 effective water saturation
SWTD	frac	MR DT2 total water saturation
T2DIMG	NA	MR DT2 2D image Diffusion Vs. Intrinsic T2

Grain Size Determination		
MGE	NA	MR GrainSize standard deviation of the data fitting
MGD	frac	MR GrainSize grain size (diameter) distribution
MGDC1	frac	MR GrainSize cumulative grain size (diameter) distribution from small to large sizes
MGDC2	frac	MR GrainSize cumulative grain size (diameter) distribution from large to small sizes
MGDH7	frac	MR GrainSize histogram of the grain size distribution according to the seven categories of grain size
MGDGM	um	MR GrainSize geometric mean of the grain size distribution
MGDMED	um	MR GrainSize medium of the grain size distribution
MGDMOD	um	MR GrainSize mode of the grain size distribution
MGDSOR	NA	MR GrainSize pseudo-sorting factor of the grain size distribution
MGFD	NA	MR GrainSize a numerical value from 1-7 indicating the grain size in increasing order
MGFVFS	NA	MR GrainSize indication of Very Fine Silt Sand (grain diameter: 31-2 microns)
MGFCSS	NA	MR GrainSize indication of Coarse Silt Sand (grain diameter: 62.5-31 microns)
MGFVFS	NA	MR GrainSize indication of Very Fine Sand (grain diameter: 125-62.5 microns)
MGFFS	NA	MR GrainSize indication of Fine Sand (grain diameter: 250-125 microns)
MGFMS	NA	MR GrainSize indication of Medium Sand (grain diameter: 500-250 microns)
MGFCS	NA	MR GrainSize indication of Coarse Sand (grain diameter: 1000-500 microns)
MGFVCS	NA	MR GrainSize indication of Very Coarse Sand (grain diameter: 2000-1000 microns)