

McLeod Pavilion

Protocol: adult_chest_BREAST IMPLANT

PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>
Patient Position	<i>Prone</i>	Pulse Sequence	<i>Spin Echo</i>
Coil Configuration	<i>16Ch Breast Array by Sentinelle</i>	Imaging Options	<i>Seq, EDR, TRF, Fast, SS, ARC</i>
Plane	<i>3-PLANE</i>	SCAN RANGE	
Series Description	<i>3-Plane Localizer</i>	FOV	<i>44.0</i>
SCAN TIMING		Slice Thickness	<i>10.0</i>
TE	<i>80.0</i>	Slice Spacing	<i>5.0</i>
Number of Echoes	<i>1</i>	ACQ TIMING	
TR	<i>Minimum</i>	Freq	<i>320</i>
Receiver Bandwidth	<i>83.33</i>	Phase	<i>192</i>
IMAGE ENHANCE		Freq DIR	<i>Unswap</i>
Filter Choice	<i>None</i>	# of Acq. Before Pause	<i>0</i>
GATING/TRIGGER		Phase FOV	<i>1.00</i>
Auto Trigger Type	<i>Off</i>	Auto Shim	<i>Auto</i>
MULTI-PHASE		Phase Correction	<i>No</i>
Seperate Series	<i>0</i>	FMRI	
Mask Phase	<i>0</i>	PSD Trigger	<i>Internal</i>
Mask Pause	<i>0</i>	View Order	<i>Bottom/Up</i>
DIFFUSION		# of Repetitions REST	<i>0</i>
Recon All Images	<i>On</i>	# of Repetitions ACTIVE	<i>0</i>
CONTRAST		SAT	
Contrast Yes/No	<i>No</i>	Tag Type	<i>None</i>
		Fat/Water Saturation	<i>Fat</i>
		TRICKS	
		Pause On/Off	<i>On</i>
		Auto Subtract	<i>0</i>
		Auto SCIC	<i>Off</i>

3-Plane Localizer

3-Plane Localizer

McLeod Pavilion

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PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>
Patient Position	<i>Prone</i>	Pulse Sequence	<i>FSE-XL</i>
Coil Configuration	<i>16Ch Breast Array by Sentinelle</i>	Imaging Options	<i>FC, Seq, TRF, Fast, Asset, IrP</i>
Plane	<i>AXIAL</i>	PSD Name	<i>FRFSE-XL</i>
Series Description	<i>Ax STIR BILAT SILICONE SUPPRESSION</i>	SCAN RANGE	
SCAN TIMING		FOV	<i>34.0</i>
Flip Angle	<i>111</i>	Slice Thickness	<i>5.0</i>
TE	<i>32.0</i>	Slice Spacing	<i>1.0</i>
Number of Echoes	<i>1</i>	ACQ TIMING	
TR	<i>3617.0</i>	Freq	<i>380</i>
TI	<i>400</i>	Phase	<i>224</i>
Echo Train Length	<i>12</i>	Freq DIR	<i>A/P</i>
Receiver Bandwidth	<i>41.67</i>	Fat Shift DIR	<i>Normal (A)</i>
IMAGE ENHANCE		NEX	<i>2.00</i>
Filter Choice	<i>None</i>	# of Acq. Before Pause	<i>0</i>
GATING/TRIGGER		Phase FOV	<i>1.00</i>
Auto Trigger Type	<i>Off</i>	Auto Shim	<i>Auto</i>
FMRI		Phase Correction	<i>No</i>
PSD Trigger	<i>Internal</i>	Flow Direction Compensation	<i>Slice</i>
View Order	<i>Bottom/Up</i>	USER CVS	
# of Repetitions REST	<i>0</i>	User CV21	<i>1.00</i>
# of Repetitions ACTIVE	<i>0</i>	User CV22	<i>1.00</i>
SAT		TR Min	<i>2000.0</i>
Tag Type	<i>None</i>	TR Max	<i>6500.0</i>
TRICKS		MULTI-PHASE	
Pause On/Off	<i>On</i>	Seperate Series	<i>0</i>
Auto Subtract	<i>0</i>	Mask Phase	<i>0</i>
Auto SCIC	<i>Off</i>	Mask Pause	<i>0</i>
		DIFFUSION	
		Recon All Images	<i>On</i>
		CONTRAST	
		Contrast Yes/No	<i>No</i>

AX STIR BILAT SILICONE SUPPRESSION

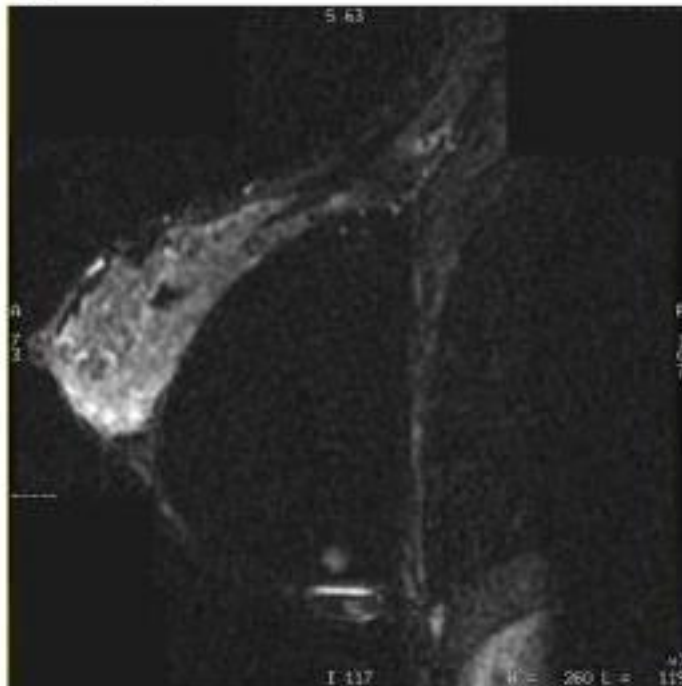
AX STIR BILAT SILICONE SUPPRESSION

OTHERS

Protocol Notes

manual adjustment of CF location to suppress silicone

Figure 5-46: Silicone suppressed typically used for tumor visualization



*Keep TI at 400ms to suppress silicone.
Silicone will be Suppressed*

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PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>
Patient Position	<i>Prone</i>	Pulse Sequence	<i>FSE-XL</i>
Coil Configuration	<i>16Ch Breast Array by Sentinelle</i>	Imaging Options	<i>EDR, TRF, Fast, ZIP512, FR, ARC</i>
Plane	<i>AXIAL</i>	SCAN RANGE	
Series Description	<i>Ax T2 FSE FATSAT</i>	FOV	<i>34.0</i>
SCAN TIMING		Slice Thickness	<i>5.0</i>
Flip Angle	<i>111</i>	Slice Spacing	<i>1.0</i>
TE	<i>102.0</i>	ACQ TIMING	
Number of Echoes	<i>1</i>	Freq	<i>320</i>
TR	<i>2928.0</i>	Phase	<i>320</i>
Echo Train Length	<i>18</i>	Freq DIR	<i>A/P</i>
Receiver Bandwidth	<i>41.67</i>	Fat Shift DIR	<i>Normal (A)</i>
IMAGE ENHANCE		NEX	<i>2.00</i>
Filter Choice	<i>None</i>	# of Acq. Before Pause	<i>0</i>
GATING/TRIGGER		Phase FOV	<i>1.00</i>
Auto Trigger Type	<i>Off</i>	Auto Shim	<i>Auto</i>
FMRI		Phase Correction	<i>No</i>
PSD Trigger	<i>Internal</i>	USER CVS	
View Order	<i>Bottom/Up</i>	User CV19	<i>0.90</i>
# of Repetitions REST	<i>0</i>	User CV21	<i>1.00</i>
# of Repetitions ACTIVE	<i>0</i>	User CV22	<i>1.00</i>
SAT		TR Min	<i>2500.0</i>
Tag Type	<i>None</i>	TR Max	<i>3500.0</i>
Fat/Water Saturation	<i>Fat</i>	MULTI-PHASE	
TRICKS		Seperate Series	<i>0</i>
Pause On/Off	<i>On</i>	Mask Phase	<i>0</i>
Auto Subtract	<i>0</i>	Mask Pause	<i>0</i>
Auto SCIC	<i>Off</i>	DIFFUSION	
		Recon All Images	<i>On</i>
		CONTRAST	
		Contrast Yes/No	<i>No</i>

AX T2 FSE FATSAT

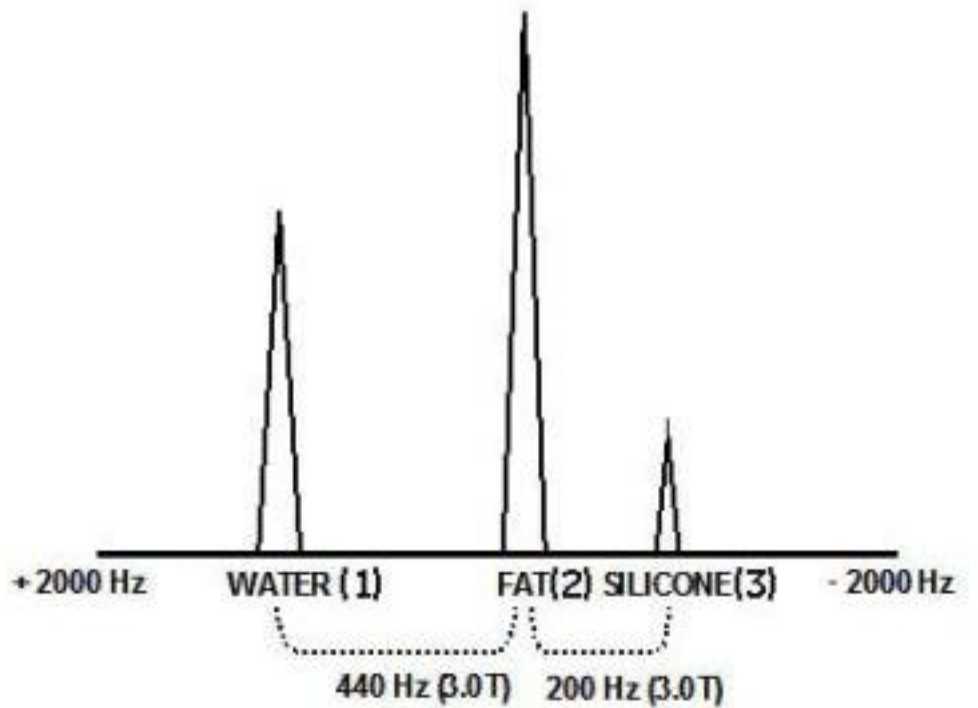
AX T2 FSE FATSAT

OTHERS

Protocol Notes

CENTER FREQUENCY IS
WATER
START ON SILICONE
PEAK
WATER IS 640 HZ TO THE
LEFT OF SILICONE
MOVE DELTA SLIDER 200
3X THEN 40
DO CSTUN
SELECT 1 DONE
SCAN

Figure 5-43: 3.0T spectra illustrating relationship of water (1), fat (2) and silicone (3)



Protocol: adult_chest_BREAST IMPLANT

PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	<i>Feet First</i>	Imaging Mode	<i>3D</i>
Patient Position	<i>Prone</i>	Pulse Sequence	<i>SPGR</i>
Coil Configuration	<i>16Ch Breast Array by Sentinelle</i>	Imaging Options	<i>EDR, Fast, ZIP2, Asset</i>
Plane	<i>AXIAL</i>	SCAN RANGE	
Series Description	<i>3D Ax T1 SPGR</i>	FOV	<i>35.0</i>
SCAN TIMING		Slice Thickness	<i>1.6</i>
Flip Angle	<i>12</i>	Location per Slab	<i>140</i>
TE	<i>In Phase</i>	Overlap Locations	<i>0</i>
Number of Echoes	<i>1</i>	ACQ TIMING	
Receiver Bandwidth	<i>50.00</i>	Freq	<i>350</i>
IMAGE ENHANCE		Phase	<i>350</i>
Filter Choice	<i>None</i>	Freq DIR	<i>A/P</i>
GATING/TRIGGER		NEX	<i>1.00</i>
Auto Trigger Type	<i>Off</i>	Phase FOV	<i>1.00</i>
FMRI		Auto Shim	<i>Auto</i>
PSD Trigger	<i>Internal</i>	Phase Correction	<i>No</i>
View Order	<i>Bottom/Up</i>	USER CVS	
# of Repetitions REST	<i>0</i>	User CV6	<i>2.00</i>
# of Repetitions ACTIVE	<i>0</i>	User CV23	<i>90.00</i>
SAT		MULTI-PHASE	
Tag Type	<i>None</i>	Seperate Series	<i>0</i>
TRICKS		Delay after Acquisition without AV	<i>1</i>
Pause On/Off	<i>On</i>	Trigger Delay without AV	<i>0</i>
Auto Subtract	<i>0</i>	Mask Phase	<i>0</i>
Auto SCIC	<i>Off</i>	Mask Pause	<i>0</i>
		DIFFUSION	
		Recon All Images	<i>On</i>
		CONTRAST	
		Contrast Yes/No	<i>No</i>

3D Ax T1 SPGR

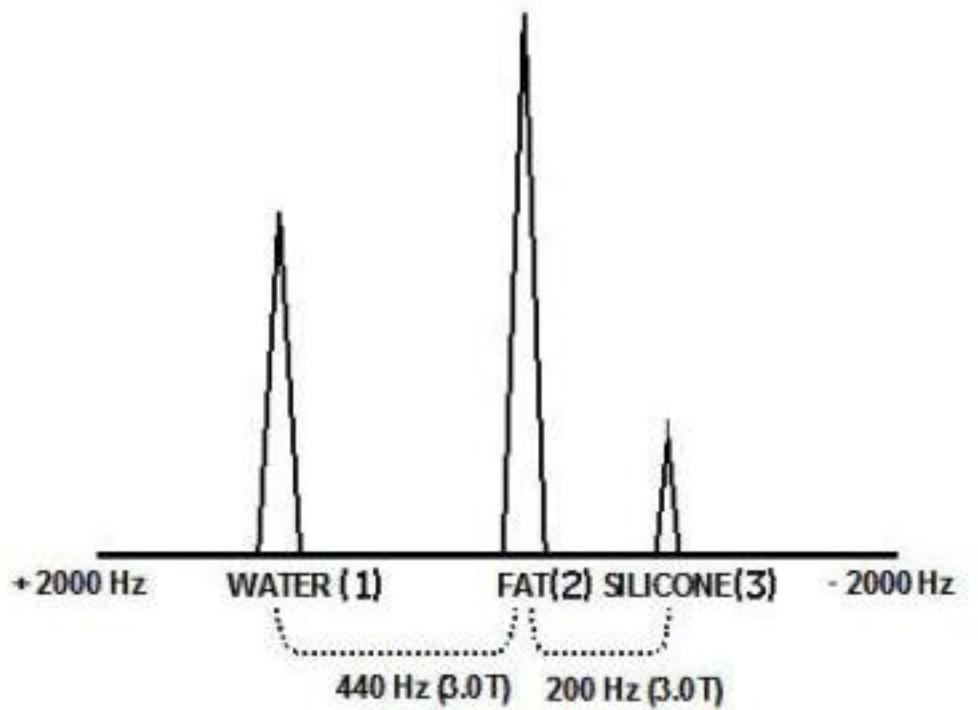
3D Ax T1 SPGR

OTHERS

Protocol Notes

START ON SILICONE
PEAK
CENTER FREQUENCY
NEEDS TO BE ON WATER
WATER IS 640 HZ TO THE
LEFT OF SILICONE
MOVE DELTA SLIDER 200
3X THEN 40

Figure 5-43: 3.0T spectra illustrating relationship of water (1), fat (2) and



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PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>
Patient Position	<i>Prone</i>	Pulse Sequence	<i>FSE-XL</i>
Coil Configuration	<i>16Ch Breast Array by Sentinelle</i>	Imaging Options	<i>FC, Seq, TRF, Fast, IrP</i>
Plane	<i>AXIAL</i>	PSD Name	<i>FRFSE-XL</i>
Series Description	<i>Ax T2 STIR Water Suppression</i>	SCAN RANGE	
SCAN TIMING		FOV	<i>35.0</i>
Flip Angle	<i>111</i>	Slice Thickness	<i>5.0</i>
TE	<i>32.0</i>	Slice Spacing	<i>1.0</i>
Number of Echoes	<i>1</i>	ACQ TIMING	
TR	<i>7099.0</i>	Freq	<i>320</i>
TI	<i>215</i>	Phase	<i>224</i>
Echo Train Length	<i>14</i>	Freq DIR	<i>A/P</i>
Receiver Bandwidth	<i>41.67</i>	Fat Shift DIR	<i>Normal (A)</i>
IMAGE ENHANCE		NEX	<i>2.00</i>
Filter Choice	<i>None</i>	Phase FOV	<i>1.00</i>
GATING/TRIGGER		Auto Shim	<i>Auto</i>
Auto Trigger Type	<i>Off</i>	Phase Correction	<i>No</i>
FMRI		Flow Direction Compensation	<i>Slice</i>
PSD Trigger	<i>Internal</i>	USER CVS	
View Order	<i>Bottom/Up</i>	User CV22	<i>1.00</i>
# of Repetitions REST	<i>0</i>	TR Min	<i>2000.0</i>
# of Repetitions ACTIVE	<i>0</i>	TR Max	<i>7200.0</i>
SAT		MULTI-PHASE	
Tag Type	<i>None</i>	Seperate Series	<i>0</i>
Fat/Water Saturation	<i>Water</i>	Mask Phase	<i>0</i>
		Mask Pause	<i>0</i>
TRICKS		DIFFUSION	
Pause On/Off	<i>On</i>	Recon All Images	<i>On</i>
Auto Subtract	<i>0</i>	CONTRAST	
Auto SCIC	<i>Off</i>	Contrast Yes/No	<i>No</i>

Ax T2 STIR Water Suppression

Ax T2 STIR Water Suppression

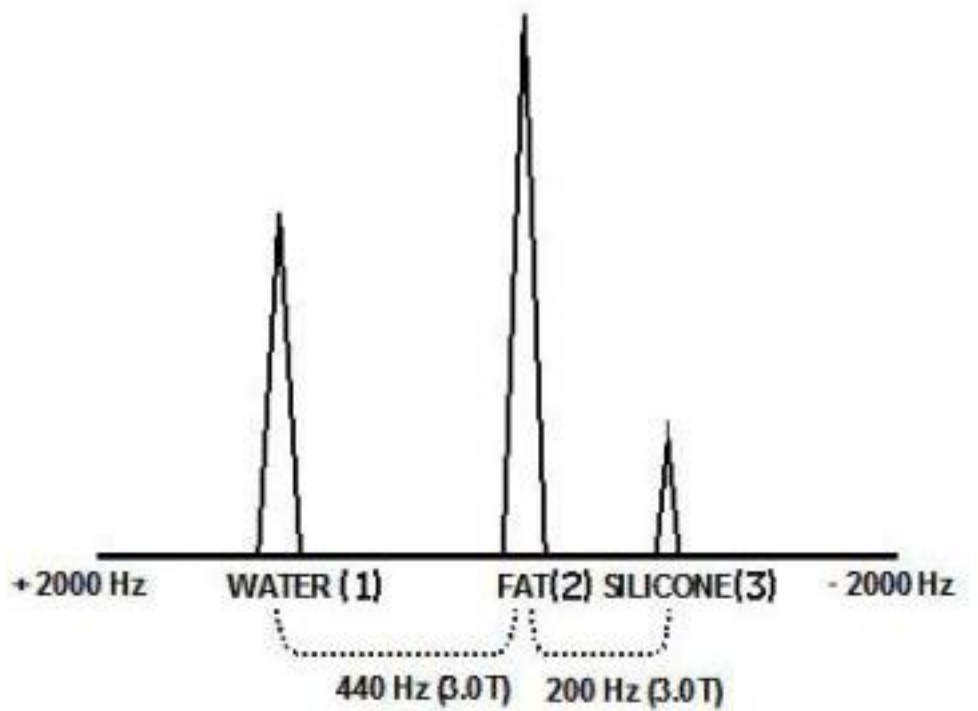
OTHERS

Protocol Notes

Water Suppression

*SILICONE IS BRIGHT
Auto and Manual Prescan.
Go to CF Fine. Center on
the
fat
peak.
FAT IS 200 TO THE LEFT
OF SILICONE
START ON SILICONE
MOVE DELTA SLIDER TO
200
Hit Done and Scan.*

Figure 5-43: 3.0T spectra illustrating relationship of water (1), fat (2) and



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PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Feet First	Imaging Mode	2D
Patient Position	Prone	Pulse Sequence	FSE-XL
Coil Configuration	16Ch Breast Array by Sentinelle	Imaging Options	FC, NPW, Seq, TRF, Fast, IrP
Plane	SAGITTAL	PSD Name	FRFSE-XL
Series Description	SAG STIR LEFT WATER SUPPRESSION	SCAN RANGE	
SCAN TIMING		FOV	22.0
Flip Angle	111	Slice Thickness	5.0
TE	32.0	Slice Spacing	1.0
Number of Echoes	1	ACQ TIMING	
TR	5393.0	Freq	300
TI	180	Phase	200
Echo Train Length	8	Freq DIR	A/P
Receiver Bandwidth	41.67	Fat Shift DIR	Normal (P)
IMAGE ENHANCE		NEX	2.00
Filter Choice	None	Auto Shim	Auto
GATING/TRIGGER		Phase Correction	No
Auto Trigger Type	Off	Flow Direction Compensation	Freq
FMRI		USER CVS	
PSD Trigger	Internal	User CV21	1.00
View Order	Bottom/Up	User CV22	1.00
# of Repetitions REST	0	TR Min	2000.0
# of Repetitions ACTIVE	0	TR Max	6500.0
SAT		MULTI-PHASE	
Tag Type	None	Seperate Series	0
Fat/Water Saturation	Water	Mask Phase	0
TRICKS		Mask Pause	0
Pause On/Off	On	DIFFUSION	
Auto Subtract	0	Recon All Images	On
Auto SCIC	Off	CONTRAST	
		Contrast Yes/No	No

SAG STIR LEFT WATER SUPPRESSION

SAG STIR LEFT WATER SUPPRESSION

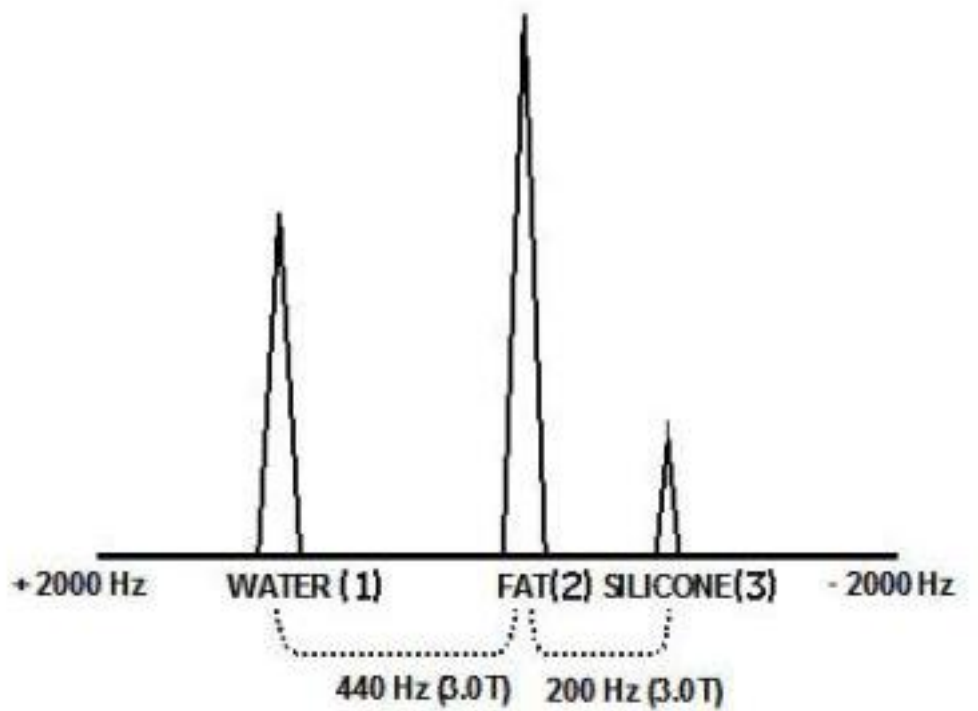
OTHERS

Protocol Notes

Water Suppression

*SILICONE IS BRIGHT
Auto and Manual Prescan.
Go to CF Fine. Center on
the
fat
peak.
FAT IS 200 TO THE LEFT
OF SILICONE
START ON SILICONE
MOVE DELTA SLIDER TO
200
Hit Done and Scan.*

Figure 5-43: 3.0T spectra illustrating relationship of water (1), fat (2) and



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PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>
Patient Position	<i>Prone</i>	Pulse Sequence	<i>FSE-XL</i>
Coil Configuration	<i>16Ch Breast Array by Sentinelle</i>	Imaging Options	<i>FC, NPW, Seq, TRF, Fast, IrP</i>
Plane	<i>SAGITTAL</i>	PSD Name	<i>FRFSE-XL</i>
Series Description	<i>SAG STIR RIGHT WATER SUPPRESSION</i>	SCAN RANGE	
SCAN TIMING		FOV	<i>22.0</i>
Flip Angle	<i>111</i>	Slice Thickness	<i>5.0</i>
TE	<i>32.0</i>	Slice Spacing	<i>1.0</i>
Number of Echoes	<i>1</i>	ACQ TIMING	
TR	<i>5393.0</i>	Freq	<i>300</i>
TI	<i>180</i>	Phase	<i>200</i>
Echo Train Length	<i>8</i>	Freq DIR	<i>A/P</i>
Receiver Bandwidth	<i>41.67</i>	Fat Shift DIR	<i>Normal (P)</i>
IMAGE ENHANCE		NEX	<i>2.00</i>
Filter Choice	<i>None</i>	Auto Shim	<i>Auto</i>
GATING/TRIGGER		Phase Correction	<i>No</i>
Auto Trigger Type	<i>Off</i>	Flow Direction Compensation	<i>Freq</i>
FMRI		USER CVS	
PSD Trigger	<i>Internal</i>	User CV21	<i>1.00</i>
View Order	<i>Bottom/Up</i>	User CV22	<i>1.00</i>
# of Repetitions REST	<i>0</i>	TR Min	<i>2000.0</i>
# of Repetitions ACTIVE	<i>0</i>	TR Max	<i>6500.0</i>
SAT		MULTI-PHASE	
Tag Type	<i>None</i>	Seperate Series	<i>0</i>
Fat/Water Saturation	<i>Water</i>	Mask Phase	<i>0</i>
TRICKS		Mask Pause	<i>0</i>
Pause On/Off	<i>On</i>	DIFFUSION	
Auto Subtract	<i>0</i>	Recon All Images	<i>On</i>
Auto SCIC	<i>Off</i>	CONTRAST	
		Contrast Yes/No	<i>No</i>

SAG STIR RIGHT WATER SUPPRESSION

SAG STIR RIGHT WATER SUPPRESSION

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OTHERS

Protocol Notes

Water Suppression

*SILICONE IS BRIGHT
Auto and Manual Prescan.
Go to CF Fine. Center on
the
fat
peak.
FAT IS 200 TO THE LEFT
OF SILICONE
START ON SILICONE
MOVE DELTA SLIDER TO
200
Hit Done and Scan.*

Figure 5-43: 3.0T spectra illustrating relationship of water (1), fat (2) and

