Estimate Reading Level

To interpret the test scores for the five cognitive domains (Complex Attention, Executive Function, Learning and Memory, Language, and Visual-Perceptual), the neuropsychologist must determine the Player's reading level before using the criteria in Tables 1-3 in this document to assess the level of cognitive impairment. The Test of Premorbid Functioning (TOPF) Reading Standard Score should ordinarily be used to determine the Retired Player's reading level. However, the TOPF Reading Standard Score should not be used if the examiner has a strong indication from the Retired Player's history, behavioral observations, and other language test results suggesting that an acquired language disorder or severe learning disability is present, or if English was learned as a second language in adulthood. If a clinician documents a Retired Player's reading score to be fundamentally inaccurate and not representative of his longstanding reading ability, that Retired Player could be classified as having "Average Reading Level" for purposes of using the impairment criteria set out in this document.

The Player's reading level must be assessed and classified as follows:

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Estimated Reading Level Classifications	Test Score Impairment Criteria Table	
Below Average Reading Level (below 90)	Use Table 1	
Average Reading Level (90 to 109)	Use Table 2	
Above Average Reading Level (above 110)	Use Table 3	

Neuropsychological Test Score Criteria

Table 1		Ex. A-2 Section 4 Neuropsychological Test Score Impairment Criteria: <i>Below Average</i> <i>Reading Ability</i>			
	Cognitive Domain/Tests		Level 1	Level 1.5	Level 2
1.	(2) WAI (3) WAI (4) WAI (5) WAI	tention S-IV Digit Span S-IV Arithmetic S-IV Letter Number Sequencing S-IV Coding S-IV Symbol Search S-IV Cancellation	3 or more scores below a T score of 37	4 or more scores below a T score of 37; OR Satisfy Level 1 criteria <u>and</u> 2 scores below a T score of 32	3 or more scores below a T score of 32
2.	Executive Function (1) Verbal Fluency (FAS) (2) Trails B (3) Booklet Category Test (4) WAIS-IV Similarities		2 or more scores below a T score of 37	3 or more scores below a T score of 37; OR Satisfy Level 1 criteria <u>and</u> 1 score below a T score of 32	2 or more scores below a T score of 32
3.	(2) WMS (3) WMS (4) WMS (5) WMS	d Memory S-IV Logical Memory I S-IV Logical Memory II S-IV Verbal Paired Associates I S-IV Verbal Paired Associates II S-IV Visual Reproduction I S-IV Visual Reproduction II	3 or more scores below a T score of 37	4 or more scores below a T score of 37; OR Satisfy Level 1 criteria <u>and</u> 2 scores below a T score of 32	3 or more scores below a T score of 32
4.	(2) Cate	on Naming Test gory Fluency (Animal Naming) E Complex Ideational Material	3 or more scores below a T score of 39	Satisfy Level 1 criteria <u>and</u> 2 scores below a T score of 37	3 or more scores below a T score of 37
5.	(2) WAI	eptual S-IV Block Design S-IV Visual Puzzles S-IV Matrix Reasoning	3 or more scores below a T score of 39	Satisfy Level 1 criteria <u>and</u> 2 scores below a T score of 37	3 or more scores below a T score of 37

Neuropsychological Test Score Criteria

Т	able 2	Ex. A-2 Section 4 Neuropsychological Test Score Impairment Criteria: Average Reading Ability			
	Cognitive Domai	n/Tests	Level 1	Level 1.5	Level 2
1.	Complex Attention (1) WAIS-IV Digit Span (2) WAIS-IV Arithmetic (3) WAIS-IV Letter Numb (4) WAIS-IV Coding (5) WAIS-IV Symbol Sea (6) WAIS-IV Cancellation	ber Sequencing be	2 or more scores low a T score of 38	3 or more scores below a T score of 38; OR Satisfy Level 1 criteria <u>and</u> 1 score below a T score of 33	2 or more scores below a T score of 33
2.	Executive Function (1) Verbal Fluency (FAS) (2) Trails B (3) Booklet Category Test (4) WAIS-IV Similarities		2 or more scores low a T score of 38	3 or more scores below a T score of 38; OR Satisfy Level 1 criteria <u>and</u> 1 score below a T score of 33	2 or more scores below a T score of 33
3.	Learning and Memory (1) WMS-IV Logical Men (2) WMS-IV Logical Men (3) WMS-IV Verbal Paire (4) WMS-IV Verbal Paire (5) WMS-IV Visual Repro (6) WMS-IV Visual Repro	nory II ed Associates I ed Associates II eduction I	3 or more scores low a T score of 38	4 or more scores below a T score of 38; OR Satisfy Level 1 criteria <u>and</u> 1 score below a T score of 33	2 or more scores below a T score of 33
4.	Language (1) Boston Naming Test (2) Category Fluency (Ar (3) BDAE Complex Idea	nimal Naming) be	2 or more scores low a T score of 40	3 or more scores below a T score of 40; OR Satisfy Level 1 criteria <u>and</u> 1 score below a T score of 38	2 or more scores below a T score of 38
5.	Visual-Perceptual (1) WAIS-IV Block Desig (2) WAIS-IV Visual Puzz (3) WAIS-IV Matrix Reas	les be	2 or more scores low a T score of 40	3 or more scores below a T score of 40; OR Satisfy Level 1 criteria <u>and</u> 1 score below a T score of 38	2 or more scores below a T score of 38

NCUSSION

Re: National Football League Players' Concussion Injury Litigation No. 2:12-md-02323 (E.D. Pa.)

Neuropsychological Test Score Criteria

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	able 3	Ex. A-2 Section		st Score Impairment Criteria: Abo	ove Average
		Cognitive Domain/Tests	Readii Level 1	ng Ability Level 1.5	Level 2
1.	Complex Attention (1) WAIS-IV Digit Span (2) WAIS-IV Arithmetic		2 or more scores below a T score of 38	Satisfy Level 1 criteria <u>and</u> 3 or more scores below a T score of 40	3 or more scores below a T score of 38
2.	Executive Function (1) Verbal Fluency (FAS) (2) Trails B (3) Booklet Category Test (4) WAIS-IV Similarities		2 or more scores below a T score of 40	Satisfy Level 1 criteria <u>and</u> 3 or more scores below a T score of 40; OR Satisfy Level 1 criteria <u>and</u> 1 score below a T score of 33	2 or more scores below a T score of 33
3.	(1) V (2) V (3) V (4) V (5) V	and Memory VMS-IV Logical Memory I VMS-IV Logical Memory II VMS-IV Verbal Paired Associates I VMS-IV Verbal Paired Associates II VMS-IV Visual Reproduction I VMS-IV Visual Reproduction II	2 or more scores below a T score of 38	Satisfy Level 1 criteria <u>and</u> 3 or more scores below a T score of 40	3 or more scores below a T score of 38
4.	Language (1) Boston Naming Test (2) Category Fluency (Animal Naming) (3) BDAE Complex Ideational Material		2 or more scores below a T score of 43	3 scores below at T score of 43; OR Satisfy Level 1 criteria <u>and</u> 1 score below a T score of 40	2 or more scores below a T score of 40
5.	(2) V	e rceptual VAIS-IV Block Design VAIS-IV Visual Puzzles VAIS-IV Matrix Reasoning	2 or more scores below a T score of 43	3 scores below at T score of 43; OR Satisfy Level 1 criteria <u>and</u> 1 score below a T score of 40	2 or more scores below a T score of 40

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CONCUSSION

Re: National Football League Players' Concussion Injury Litigation No. 2:12-md-02323 (E.D. Pa.)