

Area

## NORMAL WEAR CONTAMINATION NORMAL FLUID CONDITION NORMAL

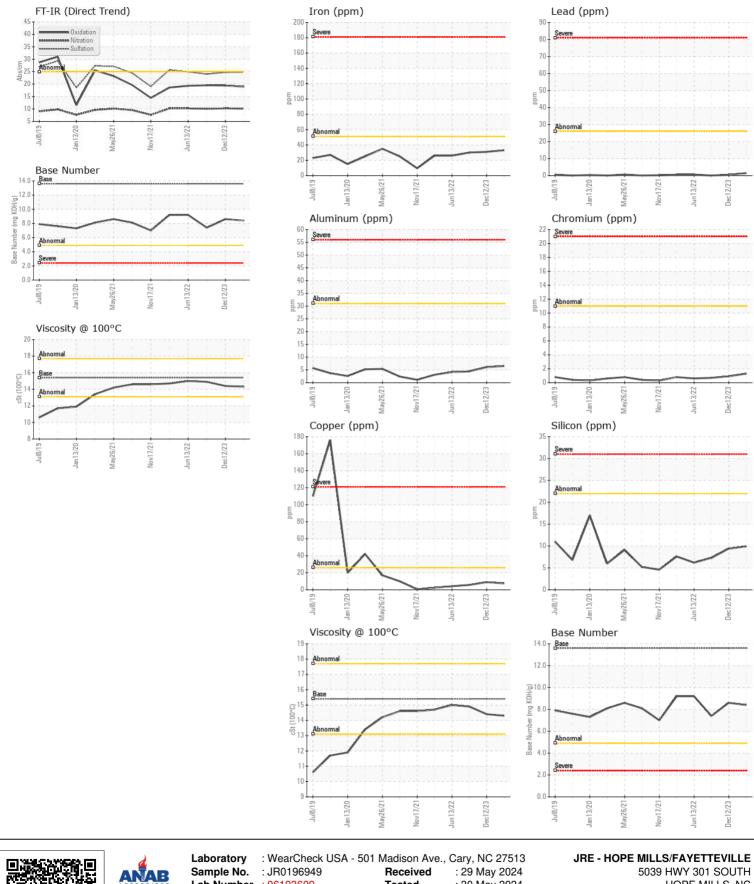


## [W8934] **JOHN DEERE 850K 1T0850KXJJF343226**

**Diesel Engine** 

## JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (27 GAL)

Test   UOM   Method   Unitial   History1   History1     Resample at the next service interval to monitor. (Customer Sample Comment: W8954)   Sample Date   Client Info   J0019666   J0194266   J0194266 <th></th> <th></th> <th>•••••</th> <th>·····</th> <th></th> <th></th> <th></th> <th></th>			•••••	·····				
Presemple at the next service interval to monitor. (Customer Sample Comment: W8934)   Sample Date Machine Age has Cillent Info   Cillent Info   28 May 204 (1) Command Comment: W8934)   20 Part 202 (2) Command Command: W8034)   21 Age 202 (2) Command: W8034)	RECOMMENDATION		UOM		Limit/Abn			-
Comment: W8334 )   Sample Data Machine App   Count into Di Age   The Chant into Di Age   Sample Data Filter Age   Count into Di Age   Sample Data Filter Age <th< th=""><th rowspan="2"></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></th<>								
Machine Age   Ins   Clent Info   5559   4495   4495     Oil Age   hrs   Clent Info   5591   0   439   4495     Filter Age   hrs   Clent Info   0   0   0   Changed     Oil Changed   Clent Info   0   0   Changed   NA   Changed     Sampio Status   V   NORMA   NORMA   NORMA   NORMA   NORMA     All component wear rates are normal.   Inon   ppm   ASTM 5056n   2   2   -1     Nicke   ppm   ASTM 5056n   -21   3   -1   0   0     Store   ppm   ASTM 5056n   -23   6   -1   -1   0   0     All component wear rates are normal.   Ppm   ASTM 5056n   -23   6   -1   -1   0   0     Advaninum   ppm   ASTM 5056n   -23   6   -1   -1   0     Valadium   ppm   ASTM 5056n   -23   1						-		
Filter Age OI Changed   No   Oilent Info   Oilent Age Changed   NO   Mail   Changed   NA   NA<		0	hrs			5559		
Oil Changed Filter Changed Sample Status   Client Info (lient Info Status)   Changed NAM Changed NORMAL   NAM Changed NORMAL   Changed NAM Changed NORMAL     WEAR   Iron   ppm   ASIM DSISIO   >51   33   31   00     All component wear rates are normal.   Iron   ppm   ASIM DSISIO   >51   33   31   00     All component wear rates are normal.   Iron   ppm   ASIM DSISIO   >51   33   31   0     Otromium   ppm   ASIM DSISIO   >51   1   1   <1   1   <1   0   0     Aturninum   ppm   ASIM DSISIO   >31   6   6   4   1   <1   0   0     Auguitum   ppm   ASIM DSISIO   >4   1   <1   0   0   0     Visual   NONE   ASIM DSISIO   >4   1   <1   0   0     There is no indication of any contamination in the oil.   Piotassium   Ppm   ASIM DSISIO   >20   4   <1   <10		-	hrs					
Filter Changed Sample Status   Clenned NORMAL   Changed NORMAL   Changed NORMAL     WEAR   Normal		0	hrs					
Sample Status   NORMA   NORMAL   NORMAL     WEAR   Inon   ppm   ASTU 05165   -51   33   31   301     All component wear rates are normal.   Nokel   ppm   ASTU 05165   -51   2   2   -1     Nokel   ppm   ASTU 05165   -51   2   2   -1     Maininum   ppm   ASTU 05165   -51   1   0   0     Aluminum   ppm   ASTU 05165   -51   1   -1   0     Aluminum   ppm   ASTU 05165   -51   1   -1   -1     Vanadium   ppm   ASTU 05165   -51   1   -1   -1     Vanadium   ppm   ASTU 05165   -22   10   NONE   NONE     Vanadium   ppm   ASTU 05165   -22   10   NONE   NONE     Vanadium   ppm   ASTU 05165   -22   10   NONE   NONE     Vanadium   ppm   ASTU 05165   -22		-				-		
WEAR   Iron   ppm   ASIV DB165m   >51   33   31   30     All component wear rates are normal.   Ppm   ASIV DB165m   >1   1		-		Client Info		_		-
All component wear rates are normal.   Chromium Nickel   ppm   ASTM (588m)   11   1   <1		Sample Status				NORMAL	NORMAL	NORMAL
All component wear rates are normal.   Chromium Nickel   ppm   ASTM (588m)   11   1   <1		Iron	nnm	ASTM D5185m	>51	33	31	30
All component wear rates are normal.   Nickel   ppm   45TM 05185m   >5   2   2   <1								
Titanium   ppm   ASTM D5185n								
Silver   pp   ATM Diston   31   1   0   0     Atuminum   ppm   ASTM Diston   331   6   6   4     Lead   ppm   ASTM Diston   26   1   <1   0     Copper   ppm   ASTM Diston   266   8   9   6     Tin   ppm   ASTM Diston   26   8   9   0     Vanadium   ppm   ASTM Diston   26   8   9   0     Vanadium   ppm   ASTM Diston   26   8   9   0     Vanadium   ppm   ASTM Diston   20   1   <1   7     Vanadium   ppm   ASTM Diston   20   10   9   7     There is no indication of any contamination in the oil.   Silicon   ppm   ASTM Diston   220   10   1.0   2.0     Water   WC Method   2.1   <1.0   <1.0   2.0   1.0   2.0     Silit   sccalar								
Aluminum   ppm   ASTM D5185m   >31   6   6   4     Lead   ppm   ASTM D5185m   >26   1   <1   0     Copper   Maintonistic   >26   1   <1   0   0     Visual   Monte   ASTM D5185m   >46   1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1   <1					>3			
Lead   ppm   ASTM 05185m   >26   1   <1								
Copper   ppm   ASTM B8185m   >26   8   9   6     Tin   ppm   ASTM D8185m								
Tin   ppm   ASTM 05185n   >4   1   <1								
Vanadium   ppm   ASTM D5185m    <1								
White Metal Yellow Metal   scalar   'Visual   NONE								
CONTAMINATION   Silicon   ppm   ASTM 05/85m   >22   10   9   7     There is no indication of any contamination in the oil.   Potassium   ppm   ASTM 05/85m   >20   4   4   <1     Fuel   WC Method   >2.1   <1.0   <1.0   <1.0   <1.0   <1.0     Water   WC Method   >0.2.1   NEG   NEG   NEG   NEG     Sold %   %   'ASTM 07844   >3   0.7   0.6   0.6     Sold %   %   'ASTM 07844   >3   0.7   0.6   0.6     Sulfation   Abs/tm< 'ASTM 07845   >30   0.7   0.6   0.6     Sulfation   Abs/tm< 'ASTM 07844   >3   0.7   0.6   0.6     Sulfation   Abs/tm< 'ASTM 07845   >30   0.7   0.6   0.6     Sulfation   Abs/tm< 'ASTM 0784   >3   0.7   0.6   0.6     Sulfation   Abs/tm< 'ASTM 0784   >0.0NE   NONE   NONE   NONE   NONE   NONE </th <th></th> <th>White Metal</th> <th></th> <th>*Visual</th> <th>NONE</th> <th>NONE</th> <th>NONE</th> <th></th>		White Metal		*Visual	NONE	NONE	NONE	
CONTAMINATION   Silicon   ppm   ASTM 05/85m   >22   10   9   7     There is no indication of any contamination in the oil.   Potassium   ppm   ASTM 05/85m   >20   4   4   <1     Fuel   WC Method   >2.1   <1.0   <1.0   <1.0   <1.0   <1.0     Water   WC Method   >0.2.1   NEG   NEG   NEG   NEG     Sold %   %   'ASTM 07844   >3   0.7   0.6   0.6     Sold %   %   'ASTM 07844   >3   0.7   0.6   0.6     Sulfation   Abs/tm< 'ASTM 07845   >30   0.7   0.6   0.6     Sulfation   Abs/tm< 'ASTM 07844   >3   0.7   0.6   0.6     Sulfation   Abs/tm< 'ASTM 07845   >30   0.7   0.6   0.6     Sulfation   Abs/tm< 'ASTM 0784   >3   0.7   0.6   0.6     Sulfation   Abs/tm< 'ASTM 0784   >0.0NE   NONE   NONE   NONE   NONE   NONE </th <th></th> <th>Yellow Metal</th> <th></th> <th>*Visual</th> <th>NONE</th> <th></th> <th>NONE</th> <th>NONE</th>		Yellow Metal		*Visual	NONE		NONE	NONE
Potassium   ppm   ASTM 05185m   >20   4   4   <1								
Fuel   WC Method   >≥.1   <1.0	CONTAMINATION		ppm					
Fuel   Worker   Worker   Wirk	There is no indication of any contamination in the oil.		ppm			4		
Giycol   WC Method   NEG   NEG   NEG   0.6   0.6     Soot %   %   *ASTM D7844   >3   0.7   0.6   0.6     Nitration   Abs/rm   *ASTM D7844   >20   10.1   10.2   10.0     Sulfation   Abs/rm   *ASTM D7845   >20   24.0   NONE   NORE   N								
Soot %   %   *ASTM D7844   >3   0.7   0.6   0.6     Nitration   Abs/cm   *ASTM D7624   >20   10.1   10.2   10.0     Sulfation   Abs/tmm   *ASTM D7624   >20   10.1   10.2   10.0     Sulfation   Abs/tmm   *ASTM D7624   >20   10.1   10.2   24.0     Sulfation   Abs/tmm   *ASTM D7624   >30   24.8   24.7   24.0     Sulfation   Abs/tmm   *ASTM D7624   NONE   NORM					>0.21			
Nitration   Abs/cm   *ASTM D7624   >20   10.1   10.2   10.0     Sulfation   Abs/tmm   *ASTM D7624   >20   24.8   24.7   24.0     Silt   scalar   *Visual   NONE   NORE								
SulfationAbs/Imm'ASTM D7415>3024.824.724.0Siltscalar'VisualNONENONENONENONENONENONEDebrisscalar'VisualNONENONENONENONENONENONESand/Dirtscalar'VisualNONENONENONENONENONENONEAppearancescalar'VisualNORMNORMLNORMLNORMLNORMLNORMLOdorscalar'VisualNORMNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar'VisualNORNORMNORMLNORMLNORMLThe BN result indicates that there is suitable alkalinity remaining in the oil is suitable for further service.SodiumppmASTM D5185m>31314BoronppmASTM D5185m<158159134134134134134BariumppmASTM D5185m<1<1<1111116136157154157154157154157315715121498157315715121498157315715121498157315715121498157315715121498157315611<1113615731512149815731512149815731512149815731512149815731512149815731512149815								
Siltscalar*VisualNONENONENONENONENONEDebrisscalar*VisualNONENONENONENONENONESand/Dirtscalar*VisualNONENONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visualscalar*VisualscalarNORNORMLNORMLNORMLThe BN result indicates that there is suitable alkalinity remaining in the oil is suitable for further service.SodiumppmASTM D5185m>31314BoronppmASTM D5185m01200120MolybdenumppmASTM D5185m11111MaganeseppmASTM D5185m11111PhosphorusppmASTM D5185m11111361573PhosphorusppmASTM D5185m1117111191136SulfurppmASTM D5185m118.93423423OxidationAbs/Imm'ASTM D5185m1116.91498Abs/ImSulfurppmASTM D5185m1117111191136SulfurppmASTM D5185m13.6366532753423Phosphor								
Debrisscalar*VisualNONENORE <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>								
Sand/Dirtscalar*VisualNONENONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.21NEGNEGNEGFLUID CONDITIONSodiumppmASTM D5185m>31314BoronppmASTM D5185mI158159134BariumppmASTM D5185mI120MolybdenumppmASTM D5185mI1110MagnesiumppmASTM D5185mI111573PhosphorusppmASTM D5185mI151214981573PhosphorusppmASTM D5185mI117111191136SulfurppmASTM D5185mI117111191136SulfurppmASTM D5185mI356532753423OxidationAbs/Imm'ASTM D7141>2518.919.419.5Base Number (BN)mg KHigASTM D289613.68.48.67.4								
Appearancescalar*VisualNORML<								
Odorscalar*VisualNORMLNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.21NEGNEGNEGFLUID CONDITIONSodiumppmASTM D5185m>31314BoronppmASTM D5185m>31314BariumppmASTM D5185m0120NolybdenumppmASTM D5185m0120MolybdenumppmASTM D5185m1<11MaganeseppmASTM D5185m1<11MagnesiumppmASTM D5185m1<11PhosphorusppmASTM D5185m1151214981573PhosphorusppmASTM D5185m1117111191136SulfurppmASTM D5185m1356532753423OxidationAbs/1mm'ASTM D7141>2518.919.419.5Base Number (BN)mg KOHgASTM D289613.68.48.67.4								
Emulsified Waterscalar*Visual>0.21NEGNEGFLUID CONDITIONSodiumppmASTM D5185m>31314BoronppmASTM D5185m158158159134BariumppmASTM D5185m0120MolybdenumppmASTM D5185m0120MaganeseppmASTM D5185m1<11MagnesiumppmASTM D5185m1<11MagnesiumppmASTM D5185m1<11PhosphorusppmASTM D5185m1151214981573PhosphorusppmASTM D5185m1117111191136SulfurppmASTM D5185m1117111191136SulfurppmASTM D5185m356532753423OxidationAbs/.1mm*ASTM D7414>2518.919.419.5Base Number (BN)mg KOHlgASTM D289613.68.48.67.4								
Sodium   ppm   ASTM D5185m   >31   3   1   4     Boron   ppm   ASTM D5185m   >31   158   159   134     Barium   ppm   ASTM D5185m   0   12   0     Molybdenum   ppm   ASTM D5185m   253   265   254     Manganese   ppm   ASTM D5185m   1   <1   1     Magnesium   ppm   ASTM D5185m   839   831   845     Calcium   ppm   ASTM D5185m   1512   1498   1573     Phosphorus   ppm   ASTM D5185m   953   869   897     Zinc   ppm   ASTM D5185m   1171   1119   1136     Sulfur   ppm   ASTM D5185m   3565   3275   3423     Oxidation   Abs/.tmm *ASTM D7414   >25   18.9   19.4   19.5     Base Number (BN)   mg KOHg   ASTM D2896   13.6   8.4   8.6   7.4						_		
Boron   ppm   ASTM D5185m   158   159   134     Barium   ppm   ASTM D5185m   0   12   0     Molybdenum   ppm   ASTM D5185m   253   265   254     Manganese   ppm   ASTM D5185m   1   <1   1     Magnesium   ppm   ASTM D5185m   1   <1   1     Magnesium   ppm   ASTM D5185m   1   <1   1     Phosphorus   ppm   ASTM D5185m   1   <1   1     Tinc   ppm   ASTM D5185m   1512   1498   1573     Zinc   ppm   ASTM D5185m   1   1119   1136     Sulfur   ppm   ASTM D5185m   1   1194   1136     Oxidation   Abs/.1mm   *ASTM D5185m   1   1194   1136     Sulfur   ppm   ASTM D5185m   1   1194   1136     Sulfur   ppm   ASTM D5185m   1   119.4   19.5		Emuisitied water	scalar	visual	>0.21	NEG	NEG	NEG
Boron   ppm   ASTM D5185m   158   159   134     Barium   ppm   ASTM D5185m   0   12   0     Molybdenum   ppm   ASTM D5185m   253   265   254     Manganese   ppm   ASTM D5185m   1   <1   1     Magnesium   ppm   ASTM D5185m   1   <1   1     Magnesium   ppm   ASTM D5185m   1   <1   1     Phosphorus   ppm   ASTM D5185m   1   <1   1     Tinc   ppm   ASTM D5185m   1512   1498   1573     Zinc   ppm   ASTM D5185m   1   1119   1136     Sulfur   ppm   ASTM D5185m   1   1194   1136     Oxidation   Abs/.1mm   *ASTM D5185m   1   1194   1136     Sulfur   ppm   ASTM D5185m   1   1194   1136     Sulfur   ppm   ASTM D5185m   1   119.4   19.5	FLUID CONDITION	Sodium	ppm	ASTM D5185m	>31	3	1	4
Barium ppm ASTM D5185m 0 12 0   Molybdenum ppm ASTM D5185m 253 265 254   Manganese ppm ASTM D5185m 1 <1 1   Magnesium ppm ASTM D5185m 1 <1 1   Magnesium ppm ASTM D5185m 1 <1 1   Magnesium ppm ASTM D5185m 1 <1 1   Phosphorus ppm ASTM D5185m 1 <1 1   Zinc ppm ASTM D5185m 1512 1498 1573   Sulfur ppm ASTM D5185m 1 1119 1136   Sulfur ppm ASTM D5185m 1 1498 1573   Oxidation Abs/.1mm ASTM D5185m 1171 1119 1136   Sulfur ppm ASTM D5185m 1 3565 3275 3423   Oxidation Abs/.1mm *ASTM D7141 >25 18.9 19.4 19.5   Base Number (BN) mg K0Hg ASTM D286 13.6						158	159	134
Molybdenum ppm ASTM D5185m 253 265 254   Manganese ppm ASTM D5185m 1 <1 1   Magnesium ppm ASTM D5185m 0 839 831 845   Calcium ppm ASTM D5185m 0 839 831 845   Calcium ppm ASTM D5185m 0 953 869 897   Zinc ppm ASTM D5185m 0 953 869 897   Zinc ppm ASTM D5185m 0 3565 3275 3423   Oxidation Abs/.1mm *ASTM D7141 >25 18.9 19.4 19.5   Base Number (BN) mg KOH/g ASTM D2896 13.6 8.4 8.6 7.4				ASTM D5185m				
ManganeseppmASTM D5185m1<1								254
Magnesium ppm ASTM D5185m 839 831 845   Calcium ppm ASTM D5185m 1512 1498 1573   Phosphorus ppm ASTM D5185m 0 953 869 897   Zinc ppm ASTM D5185m 1171 1119 1136   Sulfur ppm ASTM D5185m 13565 3275 3423   Oxidation Abs/.1mm *ASTM D7414 >25 18.9 19.4 19.5   Base Number (BN) mg KOH/g ASTM D2896 13.6 8.4 8.6 7.4		Manganese						
Calcium ppm ASTM D5185m 1512 1498 1573   Phosphorus ppm ASTM D5185m C 953 869 897   Zinc ppm ASTM D5185m 1171 1119 1136   Sulfur ppm ASTM D5185m C 3565 3275 3423   Oxidation Abs/.1mm *ASTM D7414 >25 18.9 19.4 19.5   Base Number (BN) mg KOH/g ASTM D2896 13.6 8.4 8.6 7.4		-		ASTM D5185m		839		845
Phosphorus   ppm   ASTM D5185m   953   869   897     Zinc   ppm   ASTM D5185m   1171   1119   1136     Sulfur   ppm   ASTM D5185m   3255   3423     Oxidation   Abs/.1mm   *ASTM D7414   >25   18.9   19.4   19.5     Base Number (BN)   mg KOH/g   ASTM D2896   13.6   8.4   8.6   7.4		-						
Sulfur   ppm   ASTM D5185m   33565   32275   3423     Oxidation   Abs/.1mm   *ASTM D7414   >25   18.9   19.4   19.5     Base Number (BN)   mg KOH/g   ASTM D2896   13.6   8.4   8.6   7.4		Phosphorus		ASTM D5185m		953	869	897
Sulfur   ppm   ASTM D5185m   33565   32275   3423     Oxidation   Abs/.1mm   *ASTM D7414   >25   18.9   19.4   19.5     Base Number (BN)   mg KOH/g   ASTM D2896   13.6   8.4   8.6   7.4								
Oxidation   Abs/.1mm   *ASTM D7414   >25 <b>18.9</b> 19.4   19.5     Base Number (BN)   mg KOH/g   ASTM D2896   13.6 <b>8.4</b> 8.6   7.4		Sulfur				3565	3275	3423
Base Number (BN)   mg KOH/g   ASTM D2896   13.6   8.4   8.6   7.4					>25			
			mg KOH/g	ASTM D2896	13.6		8.6	
		( )		ASTM D445	15.4			



Lab Number : 06193609 Tested HOPE MILLS, NC : 30 May 2024 Unique Number : 11050361 : 30 May 2024 - Sean Felton US 28348 Diagnosed Test Package : MOBCE ( Additional Tests: TBN ) Contact: FAYETTEVILLE SHOP Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. stephen.mullis@jamesriverequipment.com;canastasio@wearcheck.com \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: F: Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Submitted By: Justin Jackson Page 2 of 2