WEAR CONTAMINATION FLUID CONDITION

ABNORMAL NORMAL ATTENTION

Area

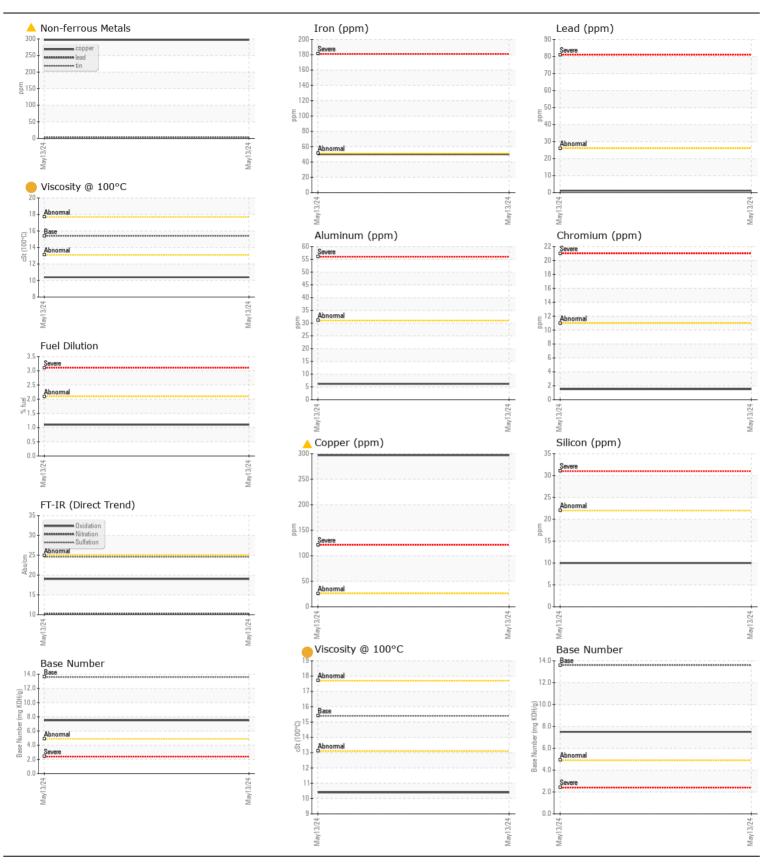
[W8887]

JOHN DEERE 544K 1DW544KZJGF674467

Diesel Engine

JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (5 GAL)

Test U.O.M. Method Liricklan Courrent Mistory Mistor	JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (GAL)						
Sample Number Client Info Sample Sample Client Info Sample Sample Client Info Sample Samp	RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Contamination Second memorial at this time. Resample at the next service interval to monitor. (Customer Sample Comment: W8887) Machine Age hrs Citent Info 5484	Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next	Sample Number		Client Info		JR0196964		
Machine Age ms Clear land S484		Sample Date		Client Info		13 May 2024		
Oil Age hrs		Machine Age	hrs	Client Info		5484		
Clean to Clean to Clean to Changed Changed Clean to Changed Chang		Oil Age	hrs	Client Info		5484		
State		Filter Age	hrs	Client Info		0		
Name		Oil Changed		Client Info		Changed		
Iron		Filter Changed		Client Info		Changed		
Chromium Dom ASTM 05185m 51 2 Mickel ppm ASTM 05185m 55 4 Titanium ppm ASTM 05185m 56 297 Titanium ppm ASTM 05185m 526 297 Titanium ppm ASTM 05185m 526 1 Copper ppm ASTM 05185m 526 297 Titanium ppm ASTM 05185m 526 297 Titanium ppm ASTM 05185m 526 297 Titanium ppm ASTM 05185m 526 1 Vanadium ppm ASTM 05185m 526 1 Value ppm ASTM 05185m 526 1		Sample Status				ABNORMAL		
Chromium Dom ASTM 05185m 51 2 Mickel ppm ASTM 05185m 55 4 Titanium ppm ASTM 05185m 56 297 Titanium ppm ASTM 05185m 526 297 Titanium ppm ASTM 05185m 526 1 Copper ppm ASTM 05185m 526 297 Titanium ppm ASTM 05185m 526 297 Titanium ppm ASTM 05185m 526 297 Titanium ppm ASTM 05185m 526 1 Vanadium ppm ASTM 05185m 526 1 Value ppm ASTM 05185m 526 1	WEAD	Iron	nnm	ACTM DE10Em	. 51	E0		
Nickel ppm ASTM 05185m >5 4								
Titanium ppm ASTM D5185m 3 0 .								
Silver	''				>5			
Aluminum ppm ASTM D5185m >26 1					0			
Lead ppm ASTM D6185m >26 1								
Copper								
Tin								
Vanadium ppm ASTM D5185m < 1								
White Metal Yellow Metal Scalar *Visual NONE NON					>4			
Soliton								
Silicon ppm ASTM D5185m >22 10						_		
Potassium ppm ASTM 05165m 2-0 4		Yellow Metal	scalar	*Visual	NONE	NONE		
Potassium ppm ASTM 05165m 2-0 4	CONTAMINATION	Silicon	ppm	ASTM D5185m	>22	10		
Fuel content negligible. There is no indication of any contamination in the oil. Fuel % ASTM D3524 >2.1 1.1 Water WC Method >0.21 NEG Glycol % "ASTM D2882 NEG Soot % % "ASTM D7844 >3 0.4 Nitration Abs/mm "ASTM D7844 >3 0.4 Nitration Abs/mm "ASTM D7844 >20 10.2 Sulfation Abs/mm "ASTM D7844 >3 0.4 Sulfation Abs/mm "Assmall D7844 >3 0.4 NORE NONE Sand/Dirt Scalar "Visual NONE NONE NORE NORE Appearance scalar "Visual NORM NORM NORM NORM NORM FLUID CONDITION The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type. FLUID CONDITION Sodium ppm ASTM D5185m 31 6 Barium ppm ASTM D5185m 31 6 Molybdenum ppm ASTM D5185m 251 Manganese ppm ASTM D5185m 251 Manganese ppm ASTM D5185m 1301 Phosphorus ppm ASTM D5185m 1301 Phosphorus ppm ASTM D5185m 1045 Phosphorus ppm ASTM D5185m 2773 Calcium ppm ASTM D5185m 2773 Phosphorus ppm ASTM D5185m 2773 Calcium ppm ASTM D5185m 2773 Phosphorus ppm ASTM D5185m 2773	CONTAININATION	Potassium						
Water WC Method > 0.21 NEG								
Glycol		Water						
Soot % % % *ASTM D7844 >3 0.4 Nitration Abs/cm *ASTM D7824 >20 10.2 Sulfation Abs/lmm *ASTM D7815 >30 24.6 Sulfation Abs/lmm *ASTM D7816 >30 24.6 Sulfation Abs/lmm *ASTM D7814 >30 24.6 Sulfation Abs/lmm *ASTM D7814 >30 24.6 Sulfation Abs/lmm *ASTM D885 NONE NONE Sulfation Abs/lmm *ASTM D885 NONE NONE Sulfation Abs/lmm ASTM D5185m NONE NONE Sulfation Abs/lmm ASTM D5185m At Sodium ASTM D5185m At Sodium ASTM D5185m At Manganese ASTM D5185m At Calcium ASTM D5185m At Calcium ASTM D5185m ASTM D5185m 5 Calcium ASTM D5185m ASTM D5185m Total Calcium ASTM D5185m			%					
Nitration				*ASTM D7844	>3			
Sulfation Abs/.1mm *ASTM D7415 >30 24.6								
Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NORML NOR		Sulfation	Abs/.1mm	*ASTM D7415	>30			
Debris Scalar *Visual NONE NONE Sand/Dirt Scalar *Visual NONE NONE Sand/Dirt Scalar *Visual NONE NONE Sand/Dirt Scalar *Visual NONE NORML NO								
Sand/Dirt Scalar *Visual NONE NONE Appearance Scalar *Visual NORML								
Appearance		Sand/Dirt						
Codor Scalar *Visual NORML N								
Emulsified Water scalar *Visual >0.21 NEG								
Sodium ppm ASTM D5185m >31 6								
Boron ppm ASTM D5185m 127 Barium ppm ASTM D5185m 4 Molybdenum ppm ASTM D5185m 251 Manganese ppm ASTM D5185m 5 Magnesium ppm ASTM D5185m 5 Calcium ppm ASTM D5185m 792 Calcium ppm ASTM D5185m 1301 Phosphorus ppm ASTM D5185m 854 Zinc ppm ASTM D5185m 1045 Sulfur ppm ASTM D5185m 2773 Sulfur ppm ASTM D5185m 2773 Sulfur ppm ASTM D5185m 2773 Sulfur ppm ASTM D5185m 13.6 7.5 Base Number (BN) mg KOH/g ASTM D2896 13.6 7.5								
Boron ppm ASTM D5185m 127 Barium ppm ASTM D5185m 4 Molybdenum ppm ASTM D5185m 251 Manganese ppm ASTM D5185m 5 Magnesium ppm ASTM D5185m 5 Calcium ppm ASTM D5185m 792 Calcium ppm ASTM D5185m 1301 Phosphorus ppm ASTM D5185m 854 Zinc ppm ASTM D5185m 1045 Sulfur ppm ASTM D5185m 2773 Sulfur ppm ASTM D5185m 2773 Sulfur ppm ASTM D5185m 2773 Sulfur ppm ASTM D5185m 13.6 7.5 Base Number (BN) mg KOH/g ASTM D2896 13.6 7.5	FLUID CONDITION	Sodium	ppm		>31	-		
there is suitable alkalinity remaining in the oil. Confirm oil type. Molybdenum ppm ASTM D5185m 251 Manganese ppm ASTM D5185m 5 Magnesium ppm ASTM D5185m 792 Calcium ppm ASTM D5185m 1301 Phosphorus ppm ASTM D5185m 854 Zinc ppm ASTM D5185m 1045 Sulfur ppm ASTM D5185m 2773 Oxidation Abs/.1mm *ASTM D7414 >25 19.0 Base Number (BN) mg KOH/g ASTM D2896 13.6 7.5	•		ppm	ASTM D5185m		127		
Molybdenum ppm ASTM D5185m 5 Magnesium ppm ASTM D5185m 5 Calcium ppm ASTM D5185m 1301 Phosphorus ppm ASTM D5185m 1301 Sulfur ppm ASTM D5185m 1045 Sulfur ppm ASTM D5185m 1045 Sulfur ppm ASTM D5185m 2773 Sulfur ppm ASTM D5185m 2773 Sulfur ppm ASTM D5185m 2773 Base Number (BN) mg KOH/g ASTM D2896 13.6 7.5		Barium	ppm	ASTM D5185m		4		
Magnesium ppm ASTM D5185m 792 Calcium ppm ASTM D5185m 1301 Phosphorus ppm ASTM D5185m 854 Zinc ppm ASTM D5185m 1045 Sulfur ppm ASTM D5185m 2773 Oxidation Abs/.1mm *ASTM D7414 >25 19.0 Base Number (BN) mg KOH/g ASTM D2896 13.6 7.5		Molybdenum	ppm	ASTM D5185m		251		
Calcium ppm ASTM D5185m 1301 Phosphorus ppm ASTM D5185m 854 Zinc ppm ASTM D5185m 1045 Sulfur ppm ASTM D5185m 2773 Oxidation Abs/.1mm *ASTM D7414 >25 19.0 Base Number (BN) mg K0H/g ASTM D2896 13.6 7.5		Manganese	ppm	ASTM D5185m		5		
Phosphorus ppm ASTM D5185m 854 Zinc ppm ASTM D5185m 1045 Sulfur ppm ASTM D5185m 2773 Oxidation Abs/.1mm *ASTM D7414 >25 19.0 Base Number (BN) mg KOH/g ASTM D2896 13.6 7.5		Magnesium	ppm	ASTM D5185m		792		
Zinc ppm ASTM D5185m 1045 Sulfur ppm ASTM D5185m 2773 Oxidation Abs/.1mm *ASTM D7414 >25 19.0 Base Number (BN) mg KOH/g ASTM D2896 13.6 7.5		Calcium	ppm	ASTM D5185m		1301		
Sulfur ppm ASTM D5185m 2773 Oxidation Abs/.1mm *ASTM D7414 >25 19.0 Base Number (BN) mg KOH/g ASTM D2896 13.6 7.5		Phosphorus	ppm	ASTM D5185m		854		
Oxidation Abs/.1mm *ASTM D7414 >25 19.0 Base Number (BN) mg KOH/g ASTM D2896 13.6 7.5		Zinc	ppm	ASTM D5185m		1045		
Base Number (BN) mg KOH/g ASTM D2896 13.6 7.5		Sulfur	ppm	ASTM D5185m		2773		
		Oxidation	Abs/.1mm	*ASTM D7414	>25	19.0		
Visc @ 100°C cSt ASTM D445 15.4 (10.4)		Base Number (BN)	mg KOH/g	ASTM D2896	13.6	7.5		
		Visc @ 100°C	cSt	ASTM D445	15.4	10.4		





Laboratory Sample No. Unique Number : 11029842

: JR0196964 Lab Number : 06178516

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received **Tested**

: 14 May 2024 : 16 May 2024 Diagnosed : 16 May 2024 - Sean Felton

JRE - HOPE MILLS/FAYETTEVILLE 5039 HWY 301 SOUTH

HOPE MILLS, NC US 28348

Test Package : MOBCE (Additional Tests: FuelDilution, Glycol, PercentFuel, TBN) Contact: FAYETTEVILLE SHOP Certificate L2367 stephen.mullis@jamesriverequipment.com;canastasio@wearcheck.com To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

T: F: