

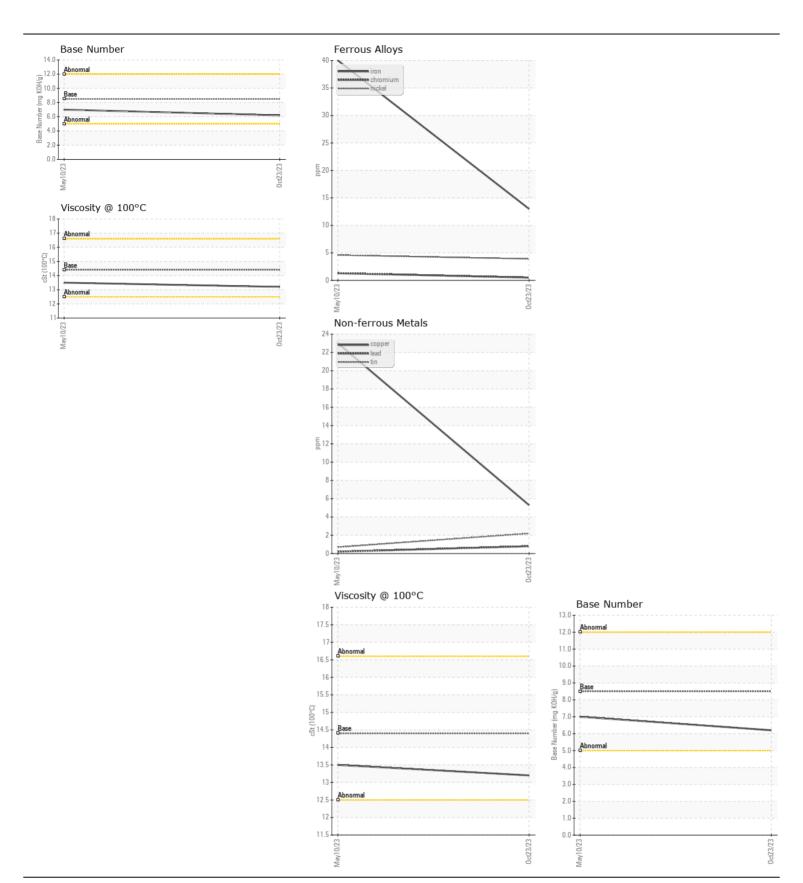
WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL



Machine Id
307
Component
Diesel Engine

Recommendation	DIESEL ENGINE OIL SAE 15W4	40 ( GAL)						
Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.   Sample Date	RECOMMENDATION	Test	HOM	Method	Limit/Ahn	Current	History1	History2
Sample Date   Client Info   Color Machine Age   hrs   Client Info   Color Machine Age   Changed   Change	TESSIMILITERATION		00				,	,
Machine Age   No.   Collett Info	·	•						
Filter Age   hrs   Client Info   Changed   Client Info   Changed   Changed		Machine Age	hrs	Client Info		6479	5737	
Pitter Changed   Client Info   Changed   Cha		Oil Age	hrs	Client Info		742	5737	
Filter Changed   Cleint Info   Changed   Changed   NORMAL   NORMAL		Filter Age	hrs	Client Info		742	5737	
Normal   N		Oil Changed		Client Info		Changed	Changed	
Iron				Client Info		Changed	Changed	
All component wear rates are normal.    Chromium   ppm   ASTM 05185m   >20   <1   1       Nickel   ppm   ASTM 05185m   >2   2   0       Titanium   ppm   ASTM 05185m   >2   2   0       Aluminum   ppm   ASTM 05185m   >20   3   5       Aluminum   ppm   ASTM 05185m   >20   3   5       Aluminum   ppm   ASTM 05185m   >20   3   5       Aluminum   ppm   ASTM 05185m   >20   0   2       Aluminum   ppm   ASTM 05185m   >15   2   <1       Aluminum   ppm   ASTM 05185m   >20   0   2       Aluminum   ppm   ASTM 05185m   >20   2       Aluminum   ppm   ASTM 051		Sample Status				NORMAL	NORMAL	
All component wear rates are normal.    Chromium   ppm   ASTM 05185m   >20   <1   1       Nickel   ppm   ASTM 05185m   >2   2   0       Titanium   ppm   ASTM 05185m   >2   2   0       Aluminum   ppm   ASTM 05185m   >20   3   5       Aluminum   ppm   ASTM 05185m   >20   3   5       Aluminum   ppm   ASTM 05185m   >20   3   5       Aluminum   ppm   ASTM 05185m   >20   0   2       Aluminum   ppm   ASTM 05185m   >15   2   <1       Aluminum   ppm   ASTM 05185m   >20   0   2       Aluminum   ppm   ASTM 05185m   >20   2       Aluminum   ppm   ASTM 051	WEAR	Iron	ppm	ASTM D5185m	>120	13	40	
Nickel   ppm   ASTM D5185m   >5   4   5				ASTM D5185m	>20		1	
Titanium   ppm   ASTM D5185m   >2							5	
Silver   ppm   ASTM D6185m   >20   3   5		Titanium						
Aluminum   ppm   ASTM D5185m   >20   3   5								
Lead   ppm   ASTM D5185m   340   <1   <1   <-1   <-1   <-1   <-1   <-1   <-1   <-1   <-1   <-1   <-1   <-1   <-1   <-1   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <   <								
Copper		Lead					<1	
Tin		Copper		ASTM D5185m	>330	5	23	
White Metal Yellow Metal   Scalar   Visual   NONE   NONE			ppm	ASTM D5185m	>15	2	<1	
Scalar   Visual   NONE   NON		Vanadium	ppm	ASTM D5185m		<1	0	
Silicon   ppm   ASTM D5185m   >25   4   6		White Metal	scalar	*Visual	NONE	NONE	NONE	
Potassium   ppm   ASTM D5185m   >20   0   2		Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
Potassium   ppm   ASTM D5185m   >20   0   2	CONTANUNATION	0		AOTM DE405	05			
Fuel   WC Method   So.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1	CONTAMINATION		• • • • • • • • • • • • • • • • • • • •					
Water   WC Method   So.2   NEG   NEG   So.5   NEG   So.5   NEG   NEG   So.5   NEG   NEG   So.5   Neg	There is no indication of any contamination in the oil.		ppm			-		
Glycol   Soot % %								
Soot % % % *ASTM D7844					>0.2			
Nitration   Abs/cm   "ASTM D7624   >20   9.0   9.5			0/		- 1			
Sulfation   Abs/.tmm   *ASTM D7415   >30   20.5   21.6								
Silt   Scalar   *Visual   NONE   NO								
Debris   Scalar   *Visual   NONE   NORML								
Sand/Dirt   Scalar *Visual   NONE   NONE   Appearance   Scalar *Visual   NORML   NOR						_		
Appearance   Scalar   *Visual   NORML   NORM								
Calcium   Calc								
Emulsified Water   scalar *Visual   >0.2   NEG   NEG								
Boron   ppm   ASTM D5185m   250   8   2								
Boron   ppm   ASTM D5185m   250   8   2	ELUID CONDITION	0 "		AOTA DE LOS	450		4	
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.    Barium   ppm   ASTM D5185m   100   63   67	FLUID CONDITION		• • • • • • • • • • • • • • • • • • • •					
Molybdenum ppm ASTM D5185m 100 63 67  Manganese ppm ASTM D5185m 450 887 903  Calcium ppm ASTM D5185m 3000 1104 1146  Phosphorus ppm ASTM D5185m 1150 870 944  Zinc ppm ASTM D5185m 1350 1180 1191  Sulfur ppm ASTM D5185m 4250 2501 2989  Oxidation Abs/.1mm *ASTM D7414 >25 16.8 15.9  Base Number (BN) mg KOH/g ASTM D2896 8.5 6.2 7.0	The BN result indicates that there is suitable alkalinity remaining in the							
Manganese         ppm         ASTM D5185m         <1	, ,		• • • • • • • • • • • • • • • • • • • •					
Magnesium         ppm         ASTM D5185m         450         887         903            Calcium         ppm         ASTM D5185m         3000         1104         1146            Phosphorus         ppm         ASTM D5185m         1150         870         944            Zinc         ppm         ASTM D5185m         1350         1180         1191            Sulfur         ppm         ASTM D5185m         4250         2501         2989            Oxidation         Abs/.1mm         *ASTM D7414         >25         16.8         15.9            Base Number (BN)         mg KOH/g         ASTM D2896         8.5         6.2         7.0		•			100			
Calcium         ppm         ASTM D5185m         3000         1104         1146            Phosphorus         ppm         ASTM D5185m         1150         870         944            Zinc         ppm         ASTM D5185m         1350         1180         1191            Sulfur         ppm         ASTM D5185m         4250         2501         2989            Oxidation         Abs/.1mm         *ASTM D7414         >25         16.8         15.9            Base Number (BN)         mg KOH/g         ASTM D2896         8.5         6.2         7.0					450			
Phosphorus         ppm         ASTM D5185m         1150         870         944            Zinc         ppm         ASTM D5185m         1350         1180         1191            Sulfur         ppm         ASTM D5185m         4250         2501         2989            Oxidation         Abs/.1mm         *ASTM D7414         >25         16.8         15.9            Base Number (BN)         mg KOH/g         ASTM D2896         8.5         6.2         7.0								
Zinc         ppm         ASTM D5185m         1350         1180         1191            Sulfur         ppm         ASTM D5185m         4250         2501         2989            Oxidation         Abs/.1mm         *ASTM D7414         >25         16.8         15.9            Base Number (BN)         mg KOH/g         ASTM D2896         8.5         6.2         7.0								
Sulfur         ppm         ASTM D5185m         4250         2501         2989            Oxidation         Abs/.1mm         *ASTM D7414         >25         16.8         15.9            Base Number (BN)         mg KOH/g         ASTM D2896         8.5         6.2         7.0		•						
Oxidation         Abs/.1mm         *ASTM D7414         >25         16.8         15.9            Base Number (BN)         mg KOH/g         ASTM D2896         8.5         6.2         7.0								
Base Number (BN)         mg KOH/g         ASTM D2896         8.5         6.2         7.0								







Certificate L2367

Laboratory Sample No. Lab Number

**Unique Number** 

: WC0847974 : 06061847 : 10833229

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Recieved : 16 Jan 2024 Diagnosed Diagnostician : Wes Davis Test Package : CONST (Additional Tests: TBN)

: 17 Jan 2024

5436 Sunset Pike Chambersburg, PA

Apple Valley Waste - Chambersburg Location

US 17202

Contact: Service Manager

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: