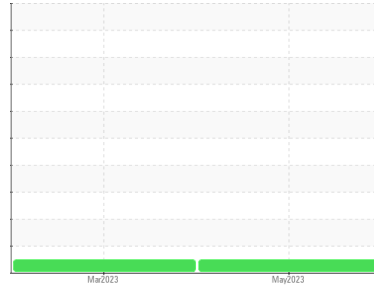




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
HER SON [CONHER]
 Machine Id
VOLVO Cummins ISX 450 T233 (S/N 4V4NC9TH5CN544881)
 Component
Diesel Engine
 Fluid
MOBIL DELVAC 1300 SUPER15W40 (45 LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		KL0012363	KL0011375	---
Sample Date	Client Info		22 May 2023	08 Mar 2023	---
Machine Age	kms	Client Info	1888721	1863857	---
Oil Age	kms	Client Info	24864	1	---
Oil Changed	Client Info		Not Chngd	Not Chngd	---
Sample Status			NORMAL	NORMAL	---

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>6.0	<1.0	<1.0	---
Glycol	WC Method		NEG	NEG	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	25	3	---
Chromium	ppm	ASTM D5185m >20	1	<1	---
Nickel	ppm	ASTM D5185m >2	0	<1	---
Titanium	ppm	ASTM D5185m	0	0	---
Silver	ppm	ASTM D5185m >2	0	<1	---
Aluminum	ppm	ASTM D5185m >25	2	1	---
Lead	ppm	ASTM D5185m >40	0	0	---
Copper	ppm	ASTM D5185m >330	<1	<1	---
Tin	ppm	ASTM D5185m >15	<1	0	---
Vanadium	ppm	ASTM D5185m	0	0	---
Cadmium	ppm	ASTM D5185m	0	0	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	41	119	---
Barium	ppm	ASTM D5185m 0	0	0	---
Molybdenum	ppm	ASTM D5185m 0	114	115	---
Manganese	ppm	ASTM D5185m	<1	<1	---
Magnesium	ppm	ASTM D5185m 0	716	775	---
Calcium	ppm	ASTM D5185m	1219	1258	---
Phosphorus	ppm	ASTM D5185m	759	794	---
Zinc	ppm	ASTM D5185m	899	956	---
Sulfur	ppm	ASTM D5185m	3610	4134	---

CONTAMINANTS

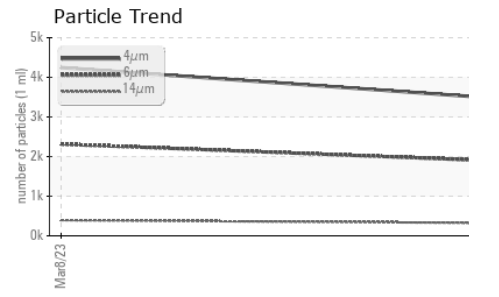
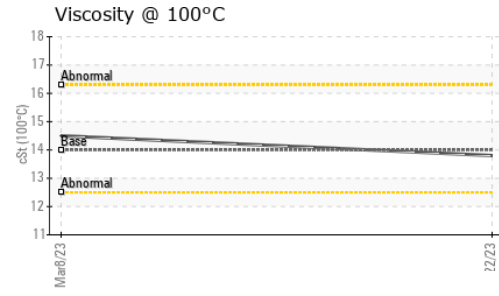
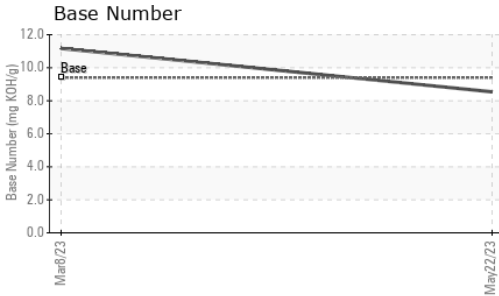
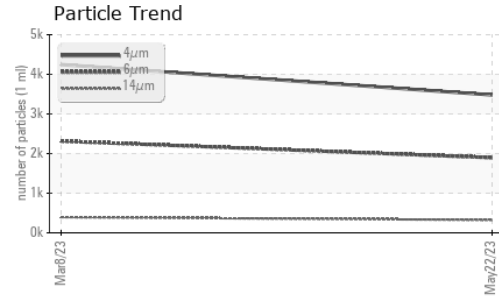
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	7	7	---
Sodium	ppm	ASTM D5185m	2	1	---
Potassium	ppm	ASTM D5185m >20	<1	<1	---

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.7	0.1	---
Nitration	Abs/cm	*ASTM D7624 >20	11.6	7.0	---
Sulfation	Abs./1mm	*ASTM D7415 >30	21.9	17.6	---



OIL ANALYSIS REPORT



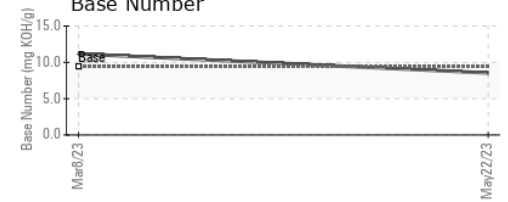
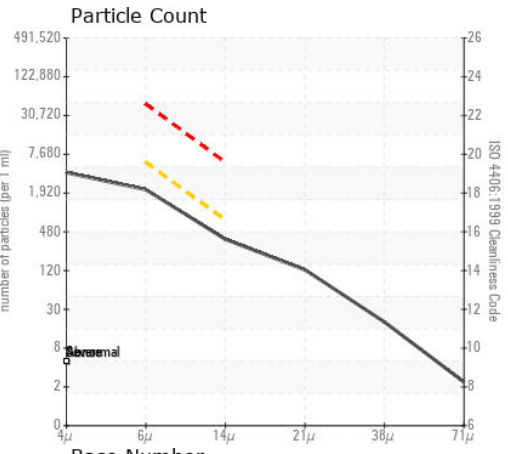
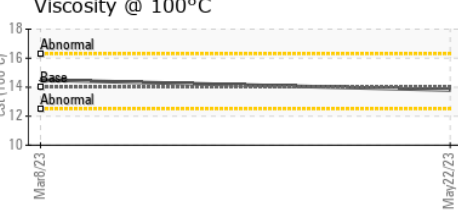
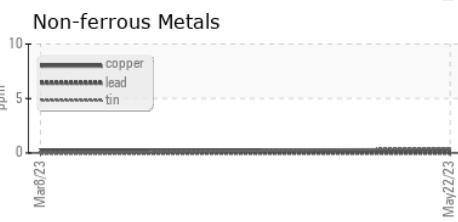
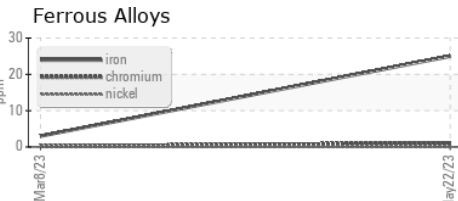
FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		3480	4246	---
Particles >6µm	ASTM D7647	>5000	1896	2313	---
Particles >14µm	ASTM D7647	>640	323	394	---
Particles >21µm	ASTM D7647	>160	109	133	---
Particles >38µm	ASTM D7647	>40	17	20	---
Particles >71µm	ASTM D7647	>10	2	2	---
Oil Cleanliness	ISO 4406 (c)	>19/16	18/16	18/16	---

FLUID DEGRADATION	method	limit/base	current	history1	history2
Oxidation	Abs./1mm *ASTM D7414	>25	19.7	13.3	---
Base Number (BN)	mg KOH/g ASTM D2896	9.4	8.54	11.17	---

VISUAL	method	limit/base	current	history1	history2
White Metal	scalar *Visual	NONE	NONE	NONE	---
Yellow Metal	scalar *Visual	NONE	NONE	NONE	---
Precipitate	scalar *Visual	NONE	NONE	NONE	---
Silt	scalar *Visual	NONE	NONE	NONE	---
Debris	scalar *Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar *Visual	NONE	NONE	NONE	---
Appearance	scalar *Visual	NORML	NORML	NORML	---
Odor	scalar *Visual	NORML	NORML	NORML	---
Emulsified Water	scalar *Visual	>0.2	NEG	NEG	---
Free Water	scalar *Visual		NEG	NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt ASTM D445	14	13.8	14.5	---

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KL0012363 **Received** : 26 May 2023
Lab Number : 05858664 **Diagnosed** : 30 May 2023
Unique Number : 10493129 **Diagnostician** : Don Baldrige
Test Package : MOB 2 (Additional Tests: PrtCount)

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)

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