



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
CAT MARC 13
 Component
Diesel Engine
 Fluid
DURALENE Dura-Max 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		DC0035758	DC0035780	DC0028850
Sample Date		Client Info		09 Apr 2024	05 Apr 2024	22 Jan 2024
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Chngd	Changed	Not Chngd
Filter Changed		Client Info		Changed	N/A	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	15	8	17
Chromium	ppm	ASTM D5185m	>20	0	0	2
Nickel	ppm	ASTM D5185m	>4	0	<1	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	3	<1	3
Lead	ppm	ASTM D5185m	>40	6	<1	8
Copper	ppm	ASTM D5185m	>330	35	3	36
Tin	ppm	ASTM D5185m	>15	6	<1	8
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	LIGHT	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

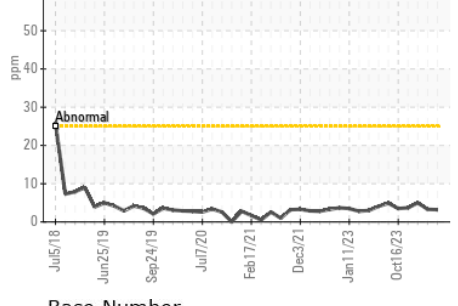
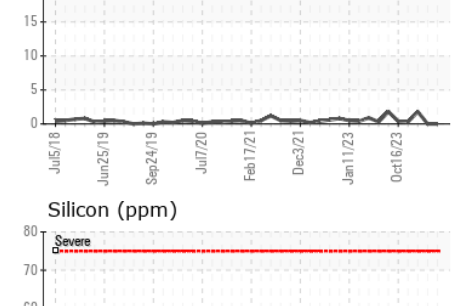
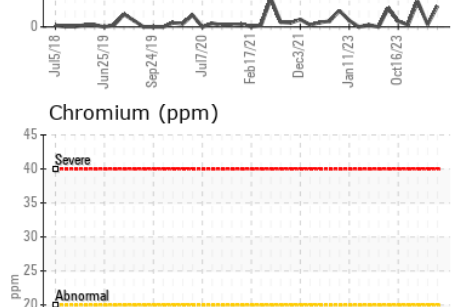
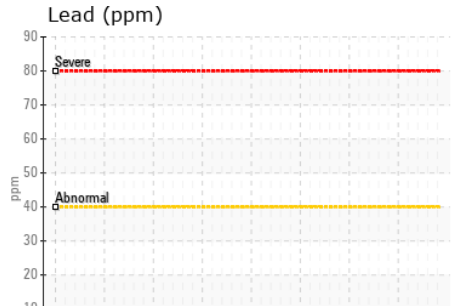
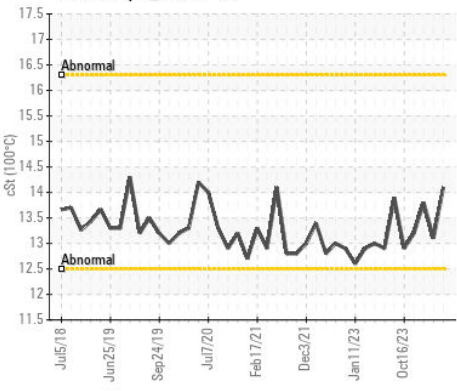
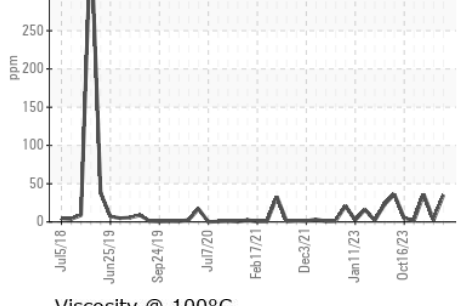
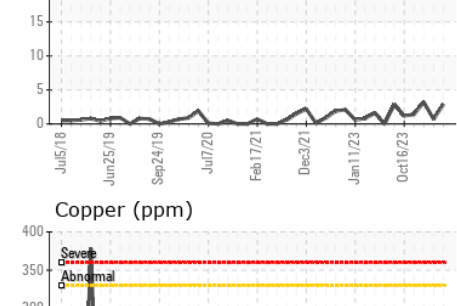
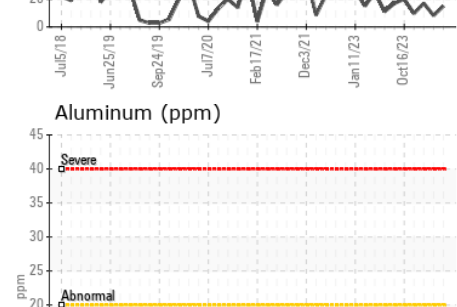
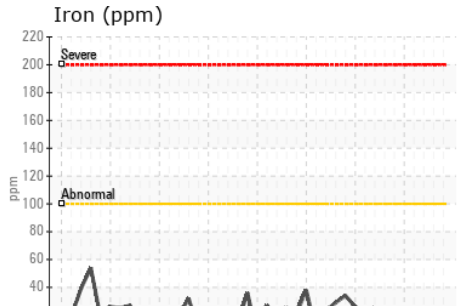
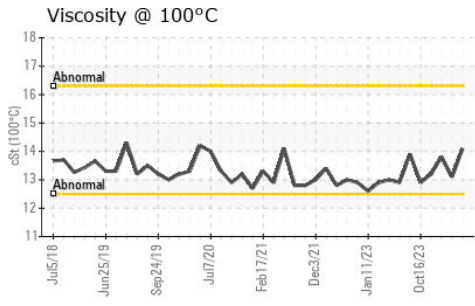
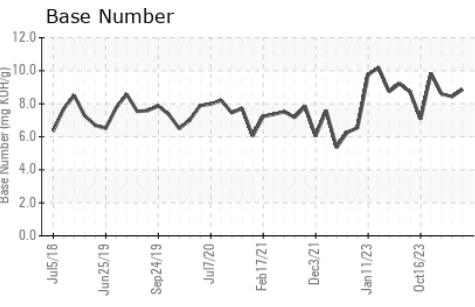
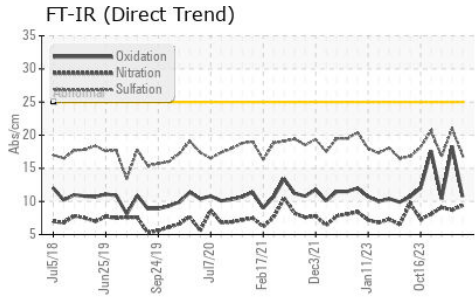
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	3	3	5
Potassium	ppm	ASTM D5185m	>20	<1	0	2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.4	0.3
Nitration	Abs/cm	*ASTM D7624	>20	9.4	8.7	9.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.0	21.0	16.8
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

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.

Sodium	ppm	ASTM D5185m		4	3	0
Boron	ppm	ASTM D5185m		35	38	36
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		49	47	48
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		16	777	14
Calcium	ppm	ASTM D5185m		3752	1176	3320
Phosphorus	ppm	ASTM D5185m		35	737	27
Zinc	ppm	ASTM D5185m		25	872	24
Sulfur	ppm	ASTM D5185m		3443	2036	2868
Oxidation	Abs/.1mm	*ASTM D7414	>25	10.7	18.3	10.4
Base Number (BN)	mg KOH/g	ASTM D2896		8.87	8.43	8.59
Visc @ 100°C	cSt	ASTM D445		14.1	13.1	13.8



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DC0035758
Lab Number : 06146768
Unique Number : 10976846
Test Package : MOB 2
Received : 11 Apr 2024
Tested : 12 Apr 2024
Diagnosed : 15 Apr 2024 - Wes Davis

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Certificate L2367
 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)