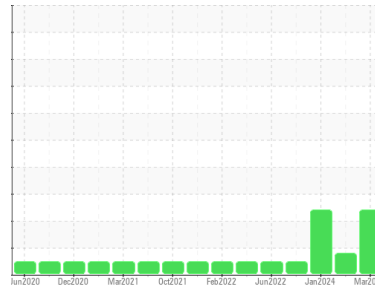




OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id
INTERNATIONAL 2582
 Component
Diesel Engine
 Fluid
DISEL ENGINE OIL SAE 15W40 (--- QTS)

DIAGNOSIS

Recommendation

We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			RW0005070	RW0005144	RW0004934
Sample Date	Client Info			26 Mar 2024	14 Feb 2024	31 Jan 2024
Machine Age	mls	Client Info		165229	161299	159590
Oil Age	mls	Client Info		5600	2500	6000
Oil Changed	Client Info			Changed	Not Changd	Changed
Sample Status				SEVERE	MARGINAL	SEVERE

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method	>0.2		NEG	NEG	NEG
Glycol	WC Method			NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	17	7	6
Chromium	ppm	ASTM D5185m	>20	<1	0	0
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	1	2
Lead	ppm	ASTM D5185m	>40	<1	0	1
Copper	ppm	ASTM D5185m	>330	1	<1	<1
Tin	ppm	ASTM D5185m	>15	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	0	4	5
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	53	54	49
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m	450	799	896	737
Calcium	ppm	ASTM D5185m	3000	989	984	817
Phosphorus	ppm	ASTM D5185m	1150	868	994	798
Zinc	ppm	ASTM D5185m	1350	966	1172	969
Sulfur	ppm	ASTM D5185m	4250	2925	3062	2366

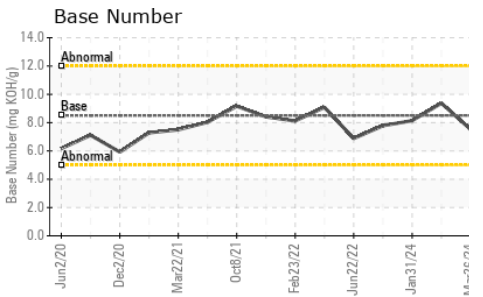
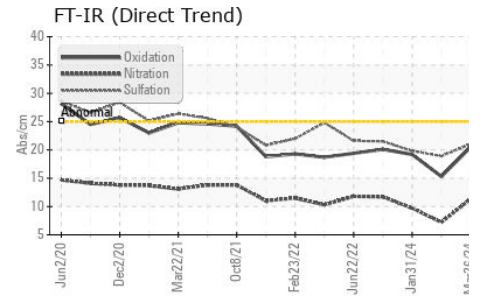
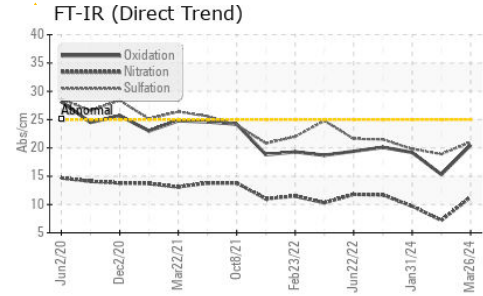
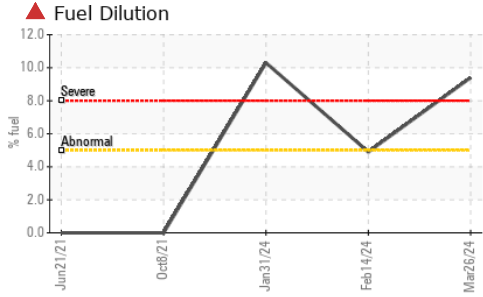
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	6	4	2
Sodium	ppm	ASTM D5185m	>158	1	<1	<1
Potassium	ppm	ASTM D5185m	>20	0	0	<1
Fuel	%	ASTM D3524	>5	▲ 9.4	▲ 4.9	▲ 10.3

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.5	0.2	0.4
Nitration	Abs/cm	*ASTM D7624	>20	11.3	7.2	9.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.0	18.9	19.8

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.5	15.3	19.2
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	7.52	9.37	8.14



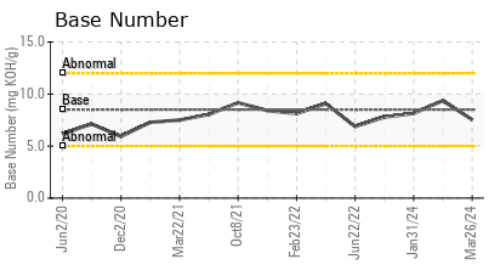
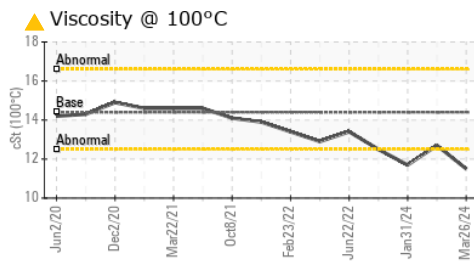
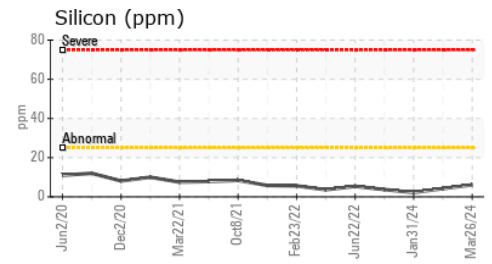
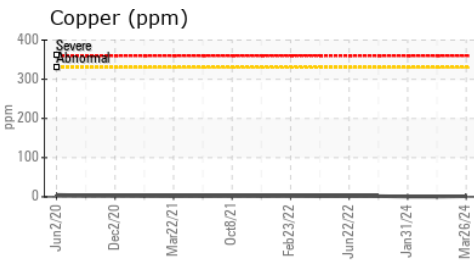
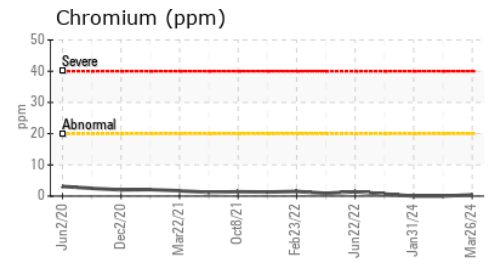
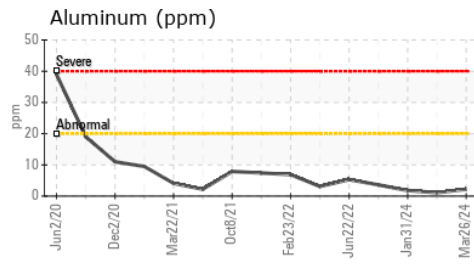
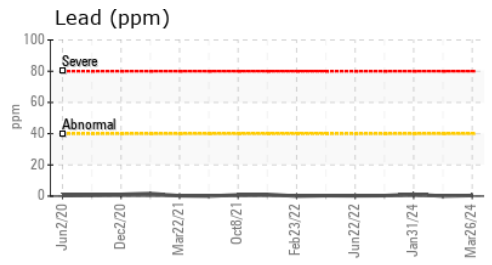
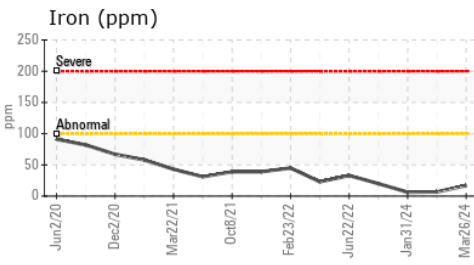
OIL ANALYSIS REPORT



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	14.4	▲ 11.5	12.7

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RW0005070 **Received** : 19 Apr 2024
Lab Number : 06154659 **Tested** : 23 Apr 2024
Unique Number : 10990082 **Diagnosed** : 23 Apr 2024 - Wes Davis
Test Package : MOB 2 (Additional Tests: FuelDilution, PercentFuel)

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 F: (231)724-4090

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)