



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	ABNORMAL

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

RECOMMENDATION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		RW0004934	RW0004540	RW0003722
Sample Date		Client Info		31 Jan 2024	16 Oct 2023	22 Jun 2022
Machine Age	mls	Client Info		159590	151426	107682
Oil Age	mls	Client Info		6000	6000	6300
Filter Age	mls	Client Info		6000	6000	6300
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				SEVERE	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	6	20	33
Chromium	ppm	ASTM D5185m	>20	0	<1	1
Nickel	ppm	ASTM D5185m	>4	0	<1	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	4	5
Lead	ppm	ASTM D5185m	>40	1	<1	<1
Copper	ppm	ASTM D5185m	>330	<1	2	2
Tin	ppm	ASTM D5185m	>15	0	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

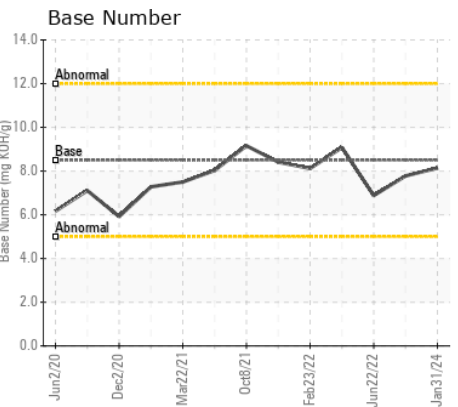
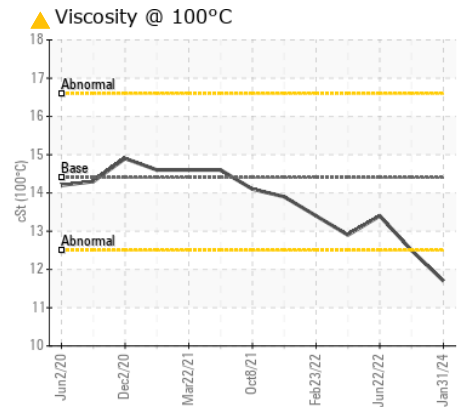
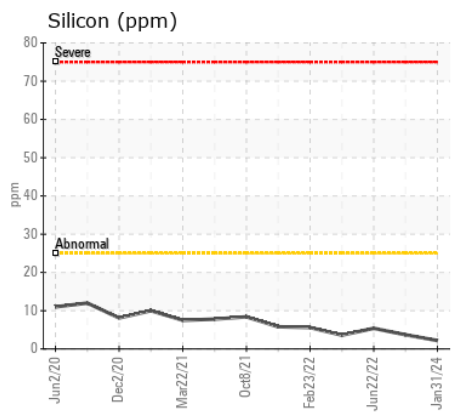
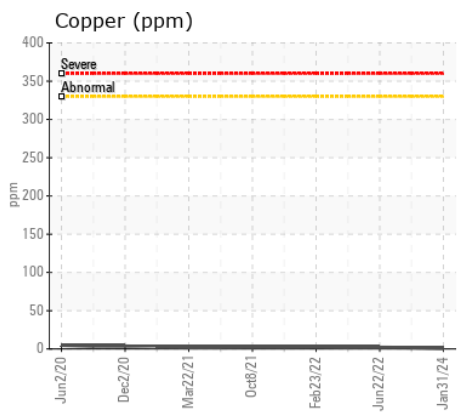
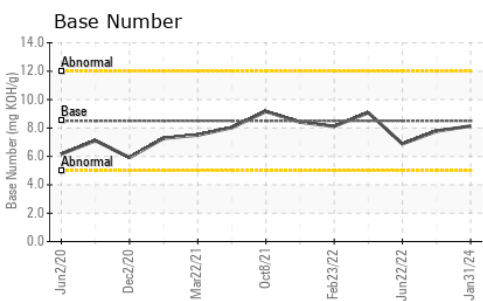
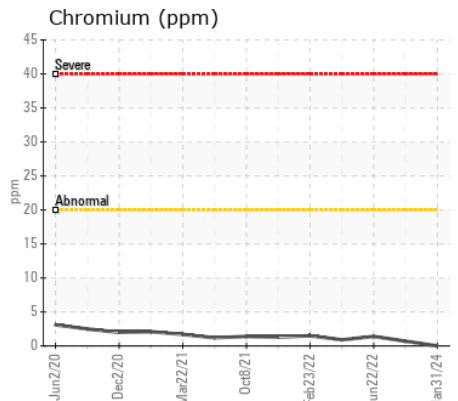
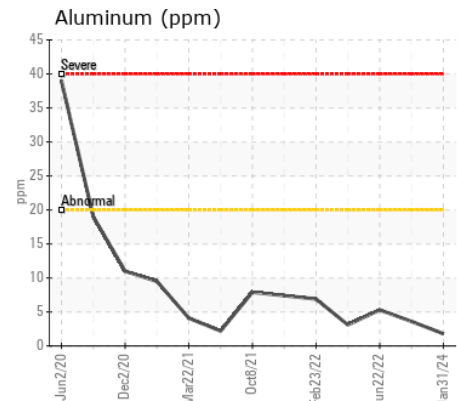
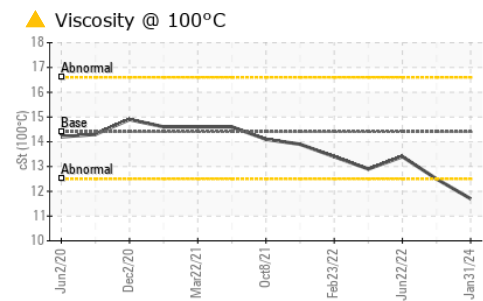
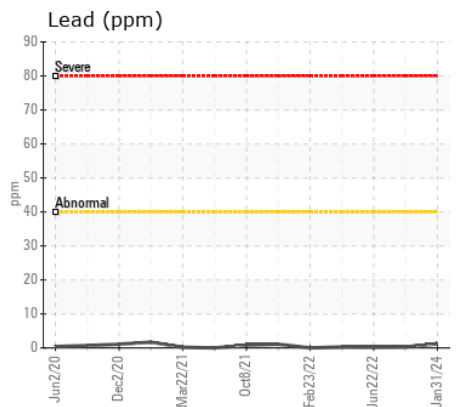
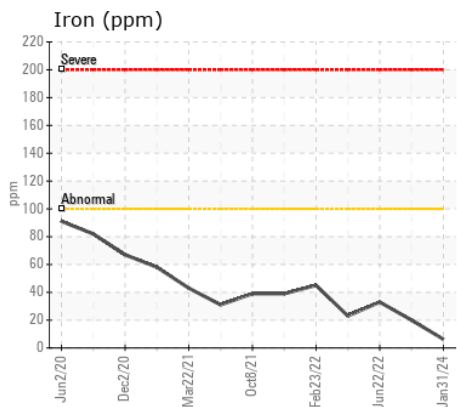
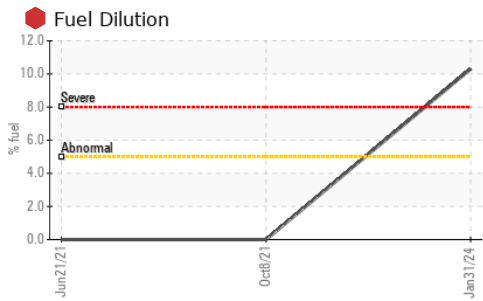
There is a high amount of fuel present in the oil.

Silicon	ppm	ASTM D5185m	>25	2	4	5
Potassium	ppm	ASTM D5185m	>20	<1	2	<1
Fuel	%	ASTM D3524	>5	10.3	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.7	0.8
Nitration	Abs/cm	*ASTM D7624	>20	9.7	11.7	11.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.8	21.5	21.6
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

Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

Sodium	ppm	ASTM D5185m	>158	<1	2	1
Boron	ppm	ASTM D5185m	250	5	2	8
Barium	ppm	ASTM D5185m	10	0	2	2
Molybdenum	ppm	ASTM D5185m	100	49	49	61
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m	450	737	752	871
Calcium	ppm	ASTM D5185m	3000	817	852	1127
Phosphorus	ppm	ASTM D5185m	1150	798	788	1003
Zinc	ppm	ASTM D5185m	1350	969	999	1240
Sulfur	ppm	ASTM D5185m	4250	2366	2743	3330
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.2	20.1	19.4
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.14	7.78	6.88
Visc @ 100°C	cSt	ASTM D445	14.4	11.7	12.5	13.4



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RW0004934 **Received** : 09 Feb 2024
Lab Number : 06084998 **Tested** : 13 Feb 2024
Unique Number : 10872443 **Diagnosed** : 13 Feb 2024 - Jonathan Hester
Test Package : MOB 2 (Additional Tests: FuelDilution, PercentFuel)

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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)