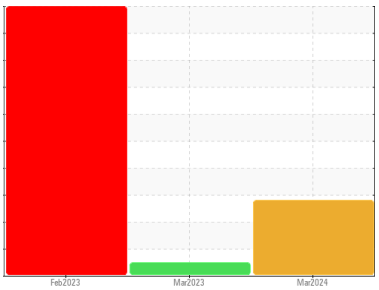
OIL ANALYSIS REPORT

Sample Rating Trend



FUEL

Machine Id
INGERSOLL RAND 185 INGERSOLL RAND 185
Component
Diesel Engine
Fluid
TRC MOLY XL PROSPEC III 15W40 (2 GAL)

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		**TR06139372**	TR05784636	TR05784633
Sample Date		Client Info		**04 Mar 2024**	02 Mar 2023	21 Feb 2023
Machine Age	hrs	Client Info		**1344**	1260	0
Oil Age	hrs	Client Info		**0**	243	60
Oil Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**SEVERE**	NORMAL	SEVERE

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.21	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	NEG	▲ 0.20

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>51	**12**	74	▲ 488
Chromium	ppm	ASTM D5185m	>11	**0**	3	▲ 17
Nickel	ppm	ASTM D5185m	>5	**2**	4	8
Titanium	ppm	ASTM D5185m		**0**	<1	69
Silver	ppm	ASTM D5185m	>3	**<1**	0	<1
Aluminum	ppm	ASTM D5185m	>31	**4**	5	● 19
Lead	ppm	ASTM D5185m	>26	**1**	11	▲ 377
Copper	ppm	ASTM D5185m	>26	**<1**	22	▲ 180
Tin	ppm	ASTM D5185m	>4	**<1**	3	▲ 38
Vanadium	ppm	ASTM D5185m		**<1**	0	<1
Cadmium	ppm	ASTM D5185m		**0**	0	<1

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**285**	178	265
Barium	ppm	ASTM D5185m		**0**	0	154
Molybdenum	ppm	ASTM D5185m		**62**	220	144
Manganese	ppm	ASTM D5185m		**<1**	2	7
Magnesium	ppm	ASTM D5185m		**316**	584	225
Calcium	ppm	ASTM D5185m	4500	**1486**	4758	1713
Phosphorus	ppm	ASTM D5185m		**865**	964	1889
Zinc	ppm	ASTM D5185m	1400	**1043**	1313	574
Sulfur	ppm	ASTM D5185m		**3470**	4163	2129

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>22	**14**	18	▲ 140
Sodium	ppm	ASTM D5185m	>31	**2**	9	▲ 1714
Potassium	ppm	ASTM D5185m	>20	**2**	4	▲ 2974
Fuel	%	ASTM D3524	>2.1	▲ **9.2**	<1.0	<1.0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	**0.1**	0.3	0.8
Nitration	Abs/cm	*ASTM D7624	>20	**7.9**	13.6	79.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	**19.6**	27.2	6.4

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**15.3**	22.3	63.5
Base Number (BN)	mg KOH/g	ASTM D2896	15	**6.28**	14.56	18.87

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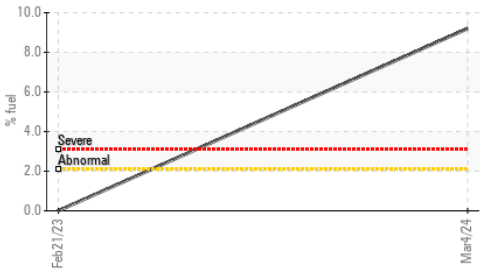
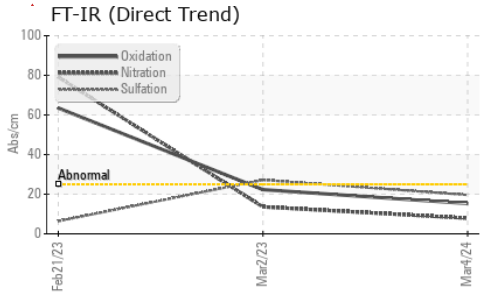
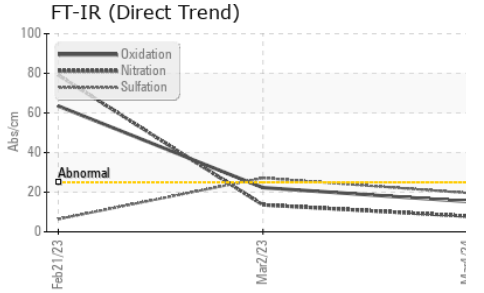
Fuel Dilution



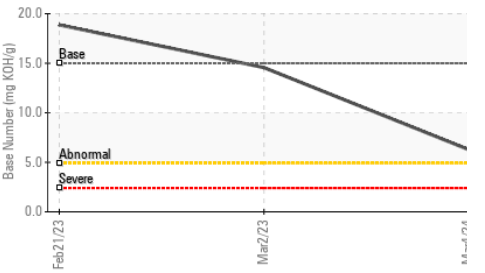
FT-IR (Direct Trend)



FT-IR (Direct Trend)



Base Number

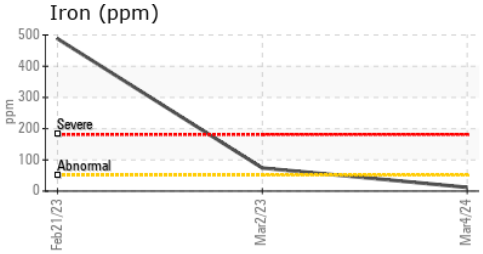


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	MILKY
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.21	**NEG**	NEG	0.2%
Free Water	scalar	*Visual		**NEG**	NEG	NEG

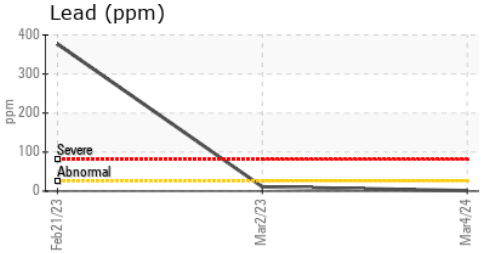
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.5	**10.6**	16.9	239

GRAPHS

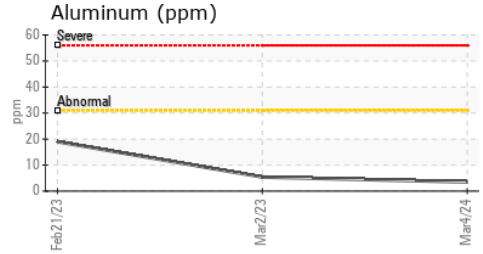
Iron (ppm)



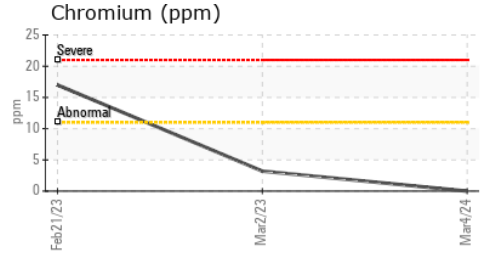
Lead (ppm)



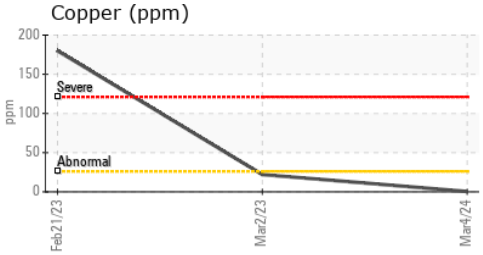
Aluminum (ppm)



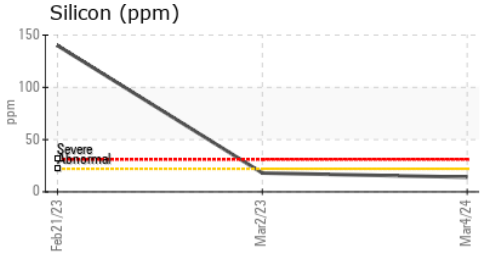
Chromium (ppm)



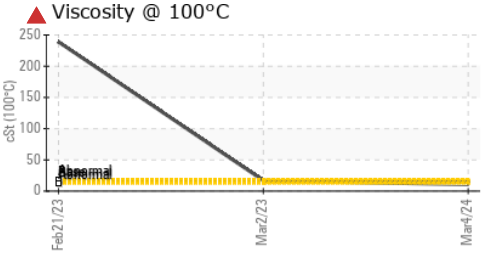
Copper (ppm)



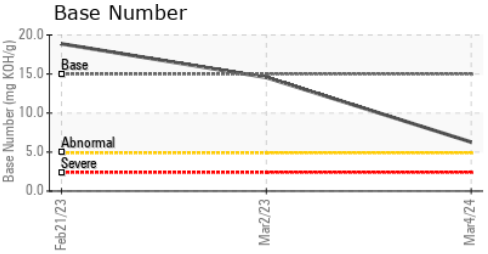
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06139372 **Received** : 04 Apr 2024
Lab Number : 06139372 **Tested** : 09 Apr 2024
Unique Number : 10964180 **Diagnosed** : 09 Apr 2024 - Wes Davis
Test Package : MOB 2 (Additional Tests: FuelDilution, PercentFuel)

To discuss this sample report, contact Customer Service at 1-800-827-0711.
** - 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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