



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	NORMAL

Area
Store 9 - Marietta

Machine Id
1127

Component
Diesel Engine

Fluid
SHELL ROTELLA T 15W40 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LEC0048372	LEC0047085	LEC0048055
Sample Date		Client Info		14 Mar 2024	04 Mar 2024	03 Feb 2024
Machine Age	hrs	Client Info		11867	941	497
Oil Age	hrs	Client Info		400	400	400
Filter Age	hrs	Client Info		400	400	400
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				MARGINAL	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	24	13	36
Chromium	ppm	ASTM D5185m	>20	<1	<1	2
Nickel	ppm	ASTM D5185m	>4	0	<1	<1
Titanium	ppm	ASTM D5185m		0	2	0
Silver	ppm	ASTM D5185m	>3	0	<1	<1
Aluminum	ppm	ASTM D5185m	>20	4	7	14
Lead	ppm	ASTM D5185m	>40	0	1	2
Copper	ppm	ASTM D5185m	>330	0	4	22
Tin	ppm	ASTM D5185m	>15	0	1	2
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

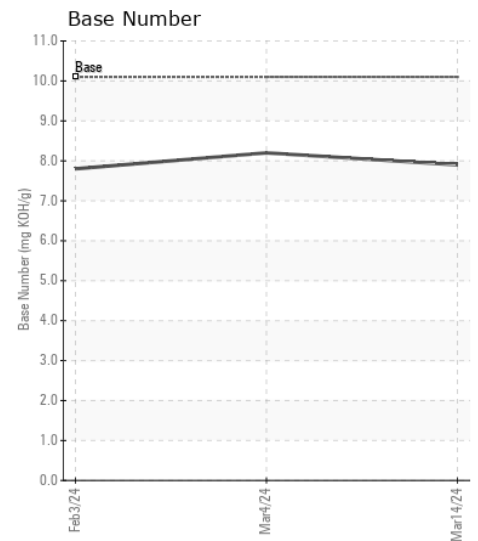
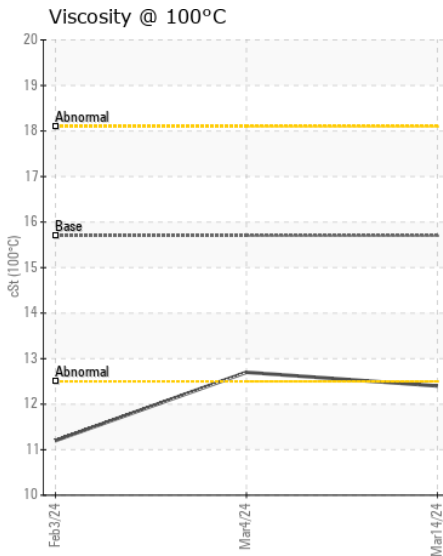
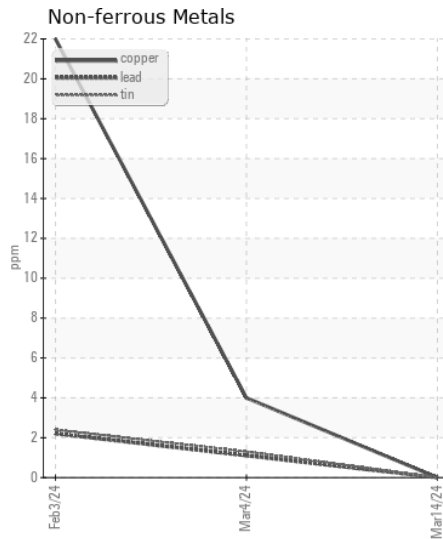
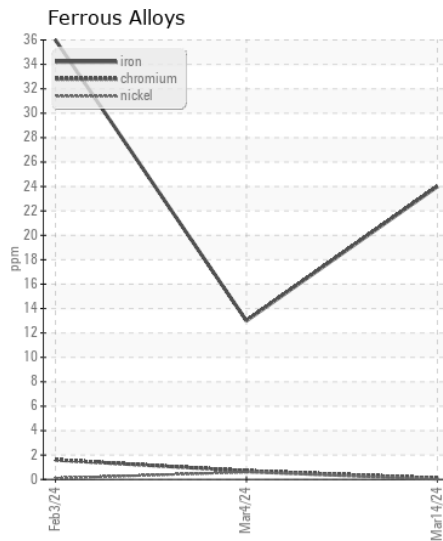
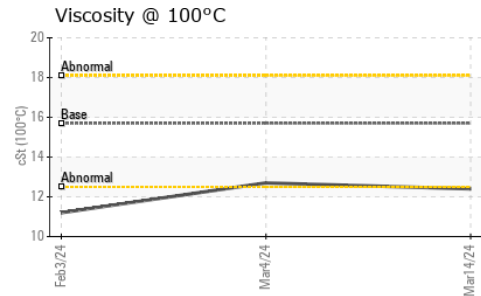
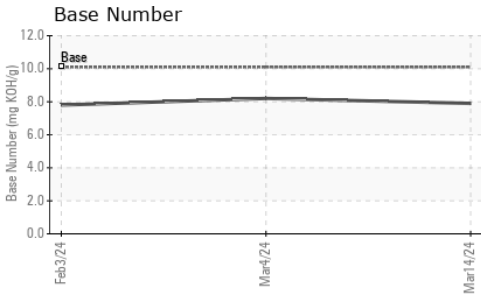
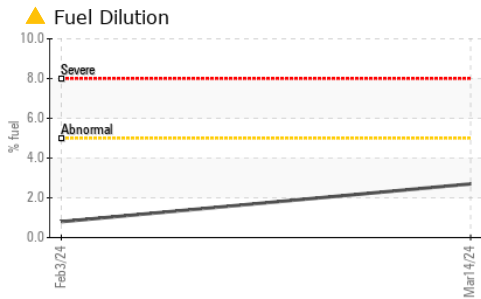
Light fuel dilution occurring.

Silicon	ppm	ASTM D5185m	>120	11	12	34
Potassium	ppm	ASTM D5185m	>20	1	14	47
Fuel	%	ASTM D3524	>5	2.7	<1.0	0.8
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.3	2.8
Nitration	Abs/cm	*ASTM D7624	>20	9.2	8.6	9.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.1	22.5	27.2
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		1	2	5
Boron	ppm	ASTM D5185m	316	244	214	60
Barium	ppm	ASTM D5185m	0.0	0	0	0
Molybdenum	ppm	ASTM D5185m	1.2	135	97	15
Manganese	ppm	ASTM D5185m		0	1	4
Magnesium	ppm	ASTM D5185m	24	725	691	754
Calcium	ppm	ASTM D5185m	2292	1712	1450	1285
Phosphorus	ppm	ASTM D5185m	1064	799	725	720
Zinc	ppm	ASTM D5185m	1160	950	873	879
Sulfur	ppm	ASTM D5185m	4996	3100	2641	2830
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.9	17.3	17.1
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	7.9	8.2	7.8
Visc @ 100°C	cSt	ASTM D445	15.7	12.4	12.7	11.2



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0048372 **Received** : 20 Mar 2024
Lab Number : 06123346 **Tested** : 22 Mar 2024
Unique Number : 10937497 **Diagnosed** : 22 Mar 2024 - Sean Felton
Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, TBN)

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 US 26346

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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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