



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
4487L
Component
Front Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		IL0032484	IL0032491	IL0032452
Sample Date		Client Info		07 Mar 2024	12 Oct 2023	26 Jul 2023
Machine Age	mls	Client Info		205610	185411	174612
Oil Age	mls	Client Info		15000	15000	15000
Filter Age	mls	Client Info		15000	15000	15000
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	46	22	60
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	<1	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	6	4	15
Lead	ppm	ASTM D5185m	>40	0	0	<1
Copper	ppm	ASTM D5185m	>330	0	<1	2
Tin	ppm	ASTM D5185m	>15	0	0	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

There is no indication of any contamination in the oil.

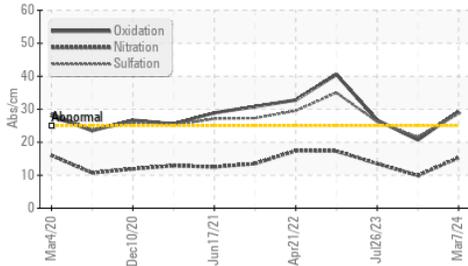
Silicon	ppm	ASTM D5185m	>25	5	4	6
Potassium	ppm	ASTM D5185m	>20	4	4	11
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	1.1	0.4	0.9
Nitration	Abs/cm	*ASTM D7624	>20	15.3	9.9	13.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	28.6	21.6	26.2
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

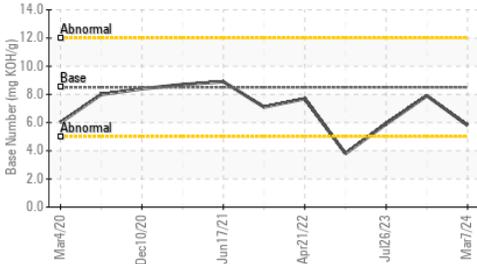
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>158	2	1	1
Boron	ppm	ASTM D5185m	250	5	<1	1
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	66	65	64
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m	450	956	1004	1057
Calcium	ppm	ASTM D5185m	3000	1186	1096	1200
Phosphorus	ppm	ASTM D5185m	1150	1037	1049	974
Zinc	ppm	ASTM D5185m	1350	1266	1305	1344
Sulfur	ppm	ASTM D5185m	4250	3331	3576	3849
Oxidation	Abs/.1mm	*ASTM D7414	>25	29.3	20.7	26.7
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	5.8	7.9	5.9
Visc @ 100°C	cSt	ASTM D445	14.4	13.7	13.1	13.6

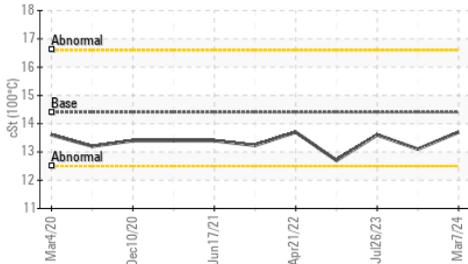
FT-IR (Direct Trend)



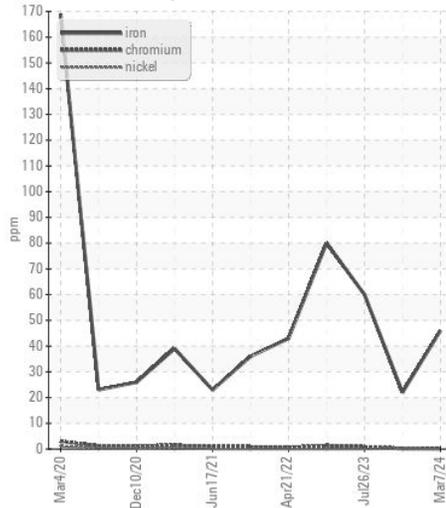
Base Number



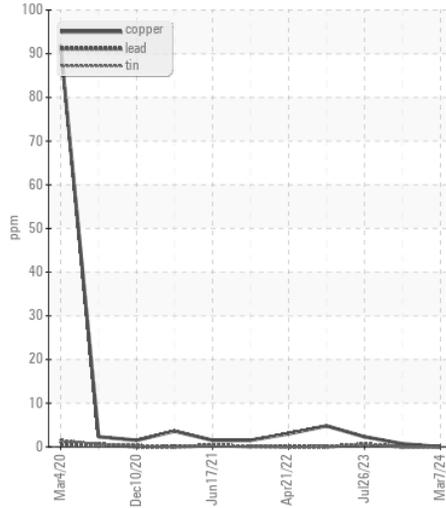
Viscosity @ 100°C



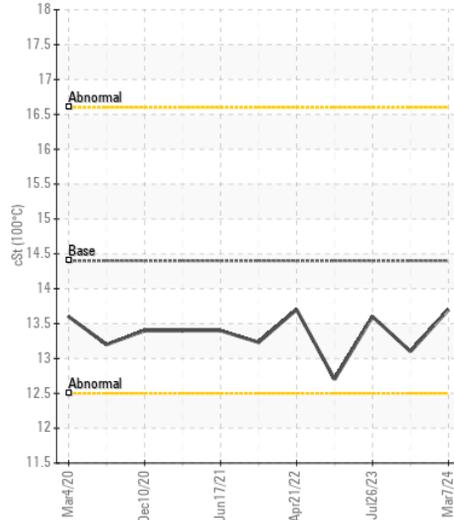
Ferrous Alloys



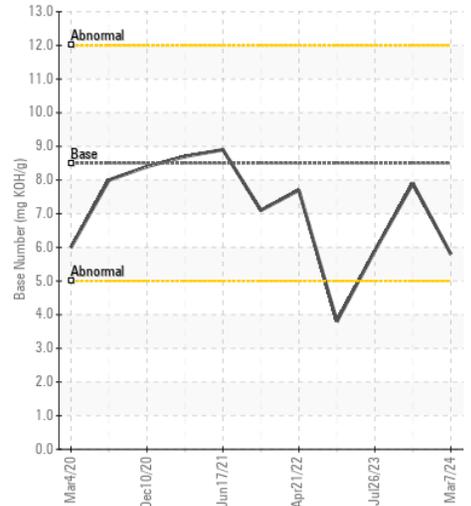
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : IL0032484

Lab Number : 06175164

Unique Number : 11021217

Test Package : FLEET

Received : 10 May 2024

Tested : 11 May 2024

Diagnosed : 13 May 2024 - Don Baldrige

RUSH TRUCK CENTER - CHICAGO IDEALEASE

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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)