



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
1461327
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 15W40 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		RPL0017022	RPL0017039	RPL0017073
Sample Date		Client Info		10 Jun 2024	30 May 2024	12 Apr 2024
Machine Age	mls	Client Info		190893	189404	175391
Oil Age	mls	Client Info		0	14013	0
Filter Age	mls	Client Info		0	14013	0
Oil Changed		Client Info		N/A	N/A	Changed
Filter Changed		Client Info		N/A	N/A	Changed
Sample Status				NORMAL	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	15	16	54
Chromium	ppm	ASTM D5185m	>20	1	1	5
Nickel	ppm	ASTM D5185m	>4	<1	0	2
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	10	10	56
Lead	ppm	ASTM D5185m	>40	2	2	9
Copper	ppm	ASTM D5185m	>330	0	<1	2
Tin	ppm	ASTM D5185m	>15	<1	<1	2
Vanadium	ppm	ASTM D5185m		0	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

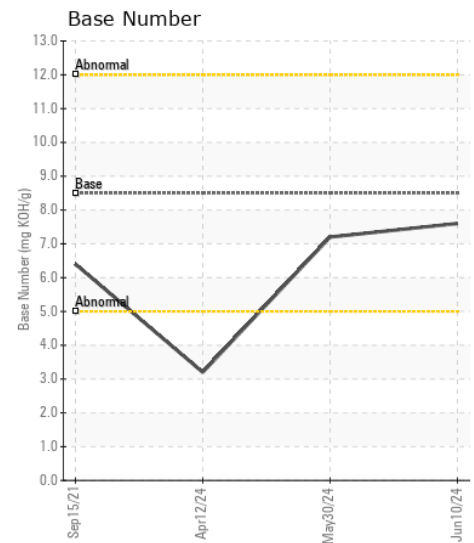
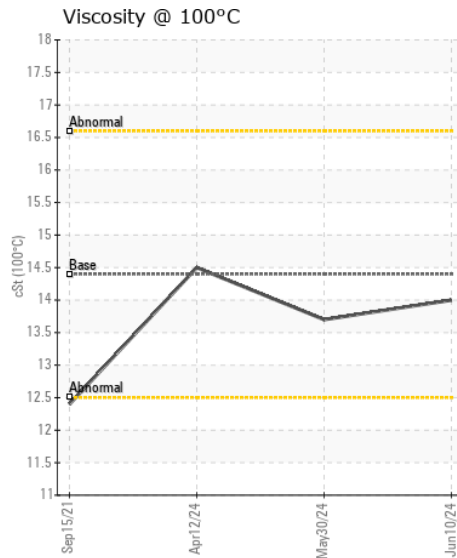
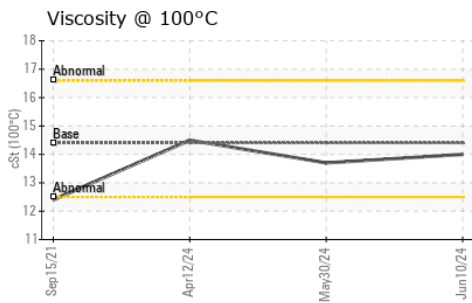
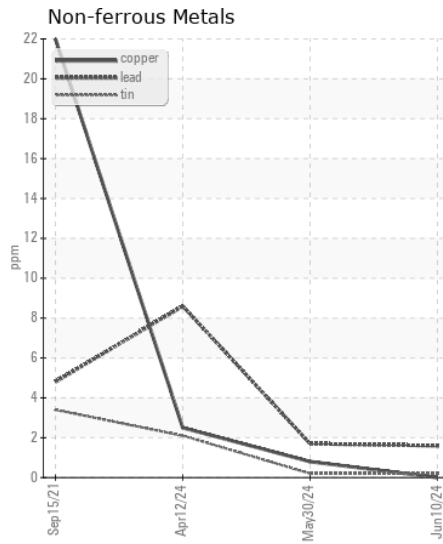
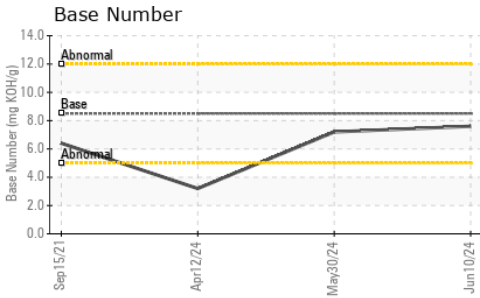
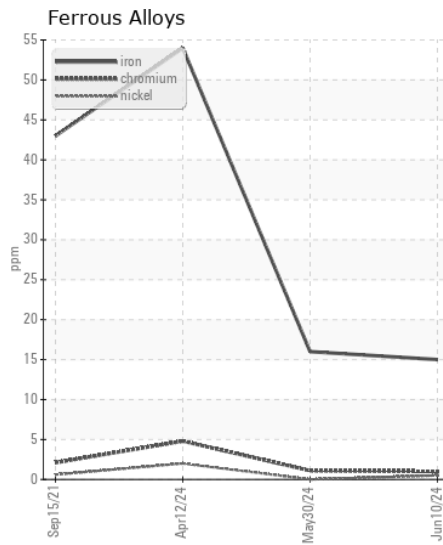
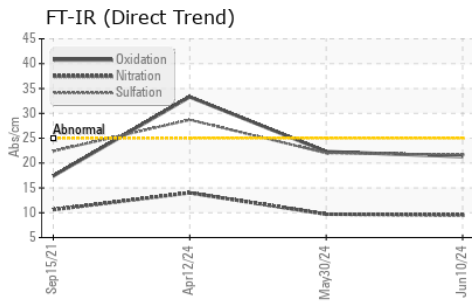
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	7	6	12
Potassium	ppm	ASTM D5185m	>20	18	19	130
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	0.3	0.3	0.8
Nitration	Abs/cm	*ASTM D7624	>20	9.5	9.7	14.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.7	22.0	28.7
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	2	1
Boron	ppm	ASTM D5185m	250	43	47	25
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	79	77	93
Manganese	ppm	ASTM D5185m		<1	<1	2
Magnesium	ppm	ASTM D5185m	450	723	646	694
Calcium	ppm	ASTM D5185m	3000	1615	1750	1424
Phosphorus	ppm	ASTM D5185m	1150	683	829	784
Zinc	ppm	ASTM D5185m	1350	1060	1008	991
Sulfur	ppm	ASTM D5185m	4250	3284	3319	2765
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.3	22.3	33.3
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	7.6	7.2	▲ 3.2
Visc @ 100°C	cSt	ASTM D445	14.4	14.0	13.7	14.5



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RPL0017022
Lab Number : 06222091
Unique Number : 11100288
Test Package : FLEET

Received : 27 Jun 2024
Tested : 28 Jun 2024
Diagnosed : 28 Jun 2024 - Wes Davis

RTL PACLEASE - 7008 - Phoenix
 625 South 27th Ave
 Phoenix, AZ
 US 85009

Contact: Maurice Pilotte
 PilotteM@rushenterprises.com

T: (602)566-5712

F:

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)