



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
1461343
 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		RPL0017020	RPL0017065	RPL0011161
Sample Date		Client Info		12 Jun 2024	30 Apr 2024	06 Dec 2023
Machine Age	mls	Client Info		219488	199945	42390
Oil Age	mls	Client Info		0	50000	42390
Filter Age	mls	Client Info		0	50000	42390
Oil Changed		Client Info		Not Changd	N/A	Changed
Filter Changed		Client Info		Not Changd	N/A	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	15	32	26
Chromium	ppm	ASTM D5185m	>20	<1	2	2
Nickel	ppm	ASTM D5185m	>4	0	1	<1
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	4	10	10
Lead	ppm	ASTM D5185m	>40	<1	5	4
Copper	ppm	ASTM D5185m	>330	0	2	1
Tin	ppm	ASTM D5185m	>15	<1	2	1
Vanadium	ppm	ASTM D5185m		0	<1	<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.

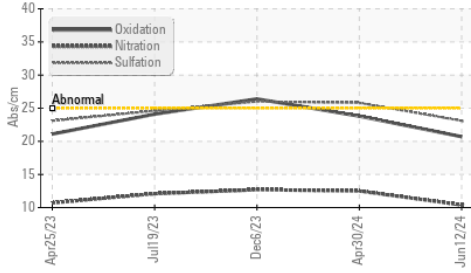
Silicon	ppm	ASTM D5185m	>25	8	9	10
Potassium	ppm	ASTM D5185m	>20	4	18	19
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.9	1.4	1.3
Nitration	Abs/cm	*ASTM D7624	>20	10.4	12.5	12.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.1	25.8	26.0
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

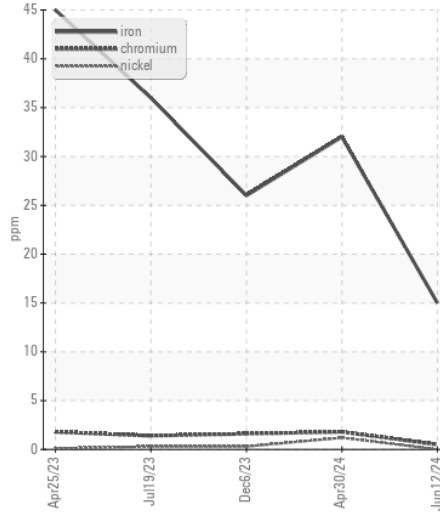
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>158	2	<1	3
Boron	ppm	ASTM D5185m	250	46	29	24
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	85	107	62
Manganese	ppm	ASTM D5185m		<1	1	<1
Magnesium	ppm	ASTM D5185m	450	668	639	593
Calcium	ppm	ASTM D5185m	3000	1675	1315	1598
Phosphorus	ppm	ASTM D5185m	1150	658	714	760
Zinc	ppm	ASTM D5185m	1350	996	885	933
Sulfur	ppm	ASTM D5185m	4250	3304	2860	2397
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.7	23.8	26.4
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	7.7	5.1	6.5
Visc @ 100°C	cSt	ASTM D445	14.4	13.5	13.7	13.9

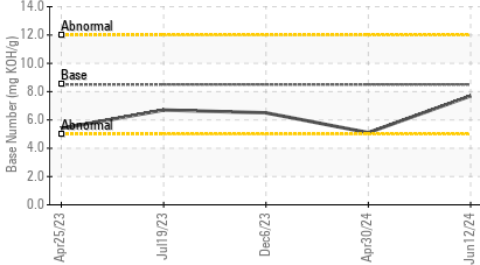
FT-IR (Direct Trend)



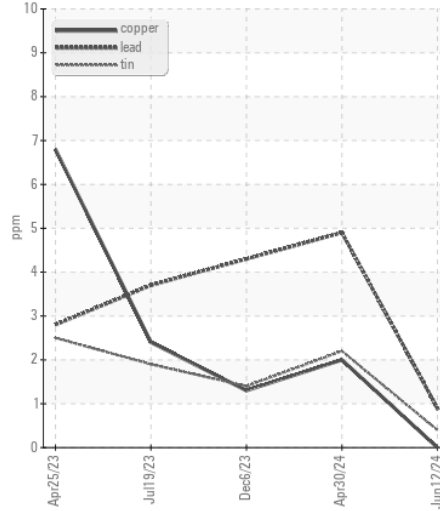
Ferrous Alloys



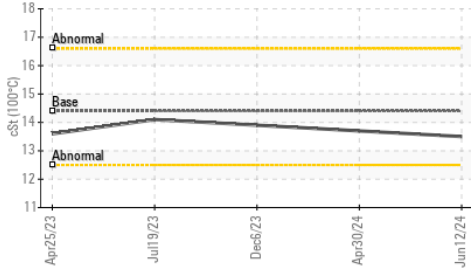
Base Number



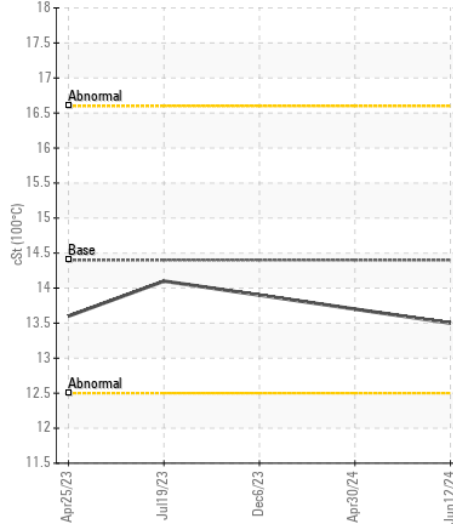
Non-ferrous Metals



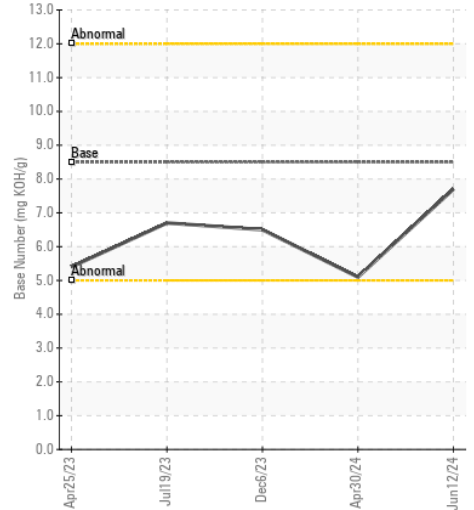
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

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

Sample No. : RPL0017020

Lab Number : 06222090

Unique Number : 11100287

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

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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)