



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Machine Id
1461314
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 15W40 (--- QTS)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		RPL0017016	RPL0011125	RPL0002125
Sample Date		Client Info		13 Jun 2024	22 Feb 2024	11 May 2022
Machine Age	mls	Client Info		212745	44812	25000
Oil Age	mls	Client Info		0	44812	25000
Filter Age	mls	Client Info		0	44812	25000
Oil Changed		Client Info		Changed	N/A	Changed
Filter Changed		Client Info		Changed	N/A	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	33	48	47
Chromium	ppm	ASTM D5185m	>20	1	1	1
Nickel	ppm	ASTM D5185m	>4	<1	0	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	<1	<1	<1
Aluminum	ppm	ASTM D5185m	>20	11	8	8
Lead	ppm	ASTM D5185m	>40	7	10	4
Copper	ppm	ASTM D5185m	>330	1	4	19
Tin	ppm	ASTM D5185m	>15	2	3	5
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

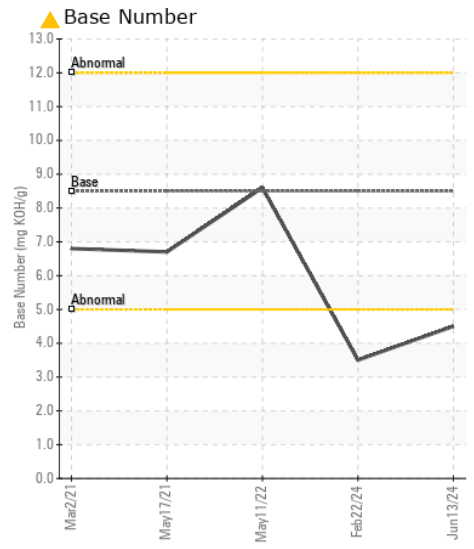
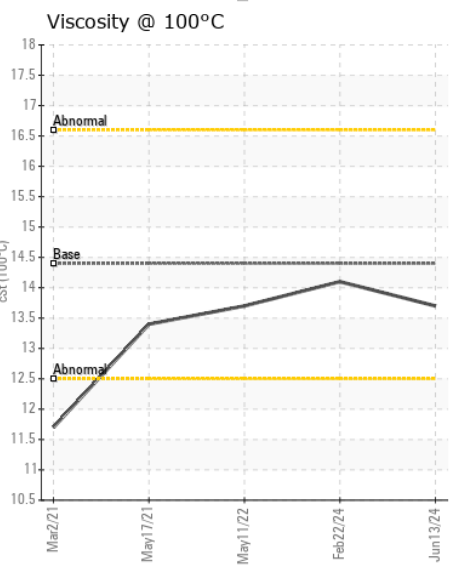
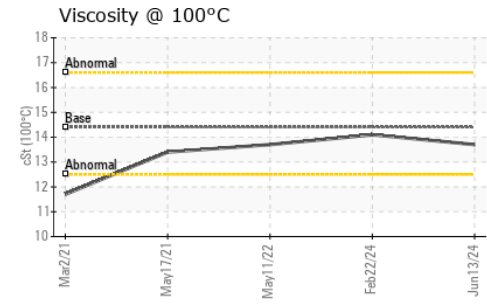
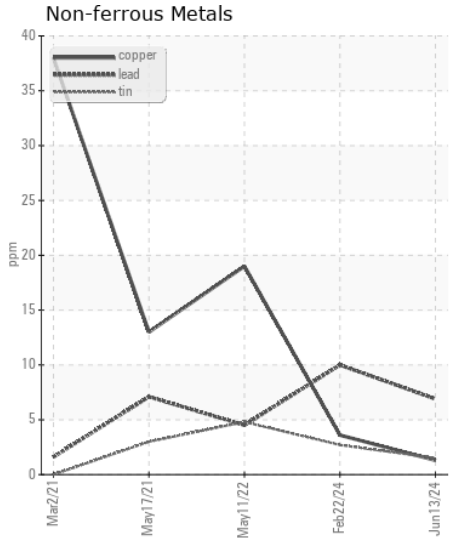
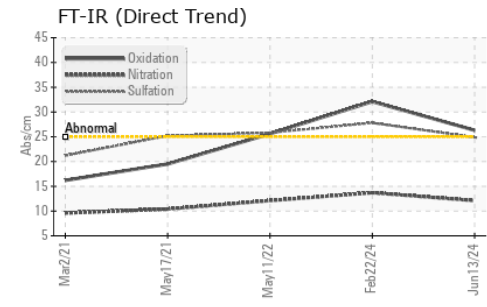
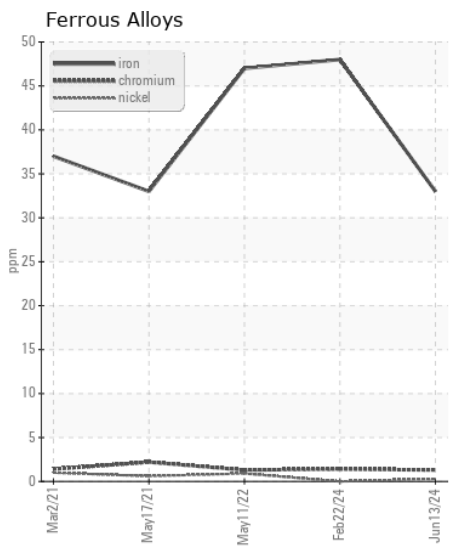
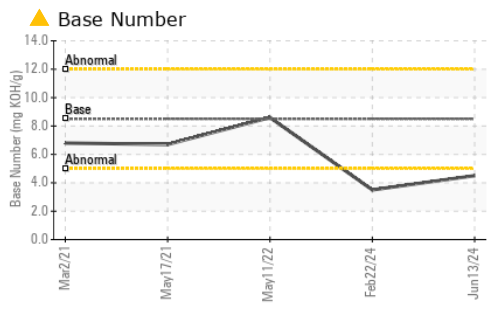
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	8	9	▲ 49
Potassium	ppm	ASTM D5185m	>20	17	11	21
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	0.7	0.8	0.6
Nitration	Abs/cm	*ASTM D7624	>20	12.1	13.7	12.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.9	27.8	25.8
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 level is low.

Sodium	ppm	ASTM D5185m	>158	3	3	5
Boron	ppm	ASTM D5185m	250	33	28	37
Barium	ppm	ASTM D5185m	10	0	0	2
Molybdenum	ppm	ASTM D5185m	100	109	74	39
Manganese	ppm	ASTM D5185m		<1	1	7
Magnesium	ppm	ASTM D5185m	450	720	632	540
Calcium	ppm	ASTM D5185m	3000	1493	1545	1599
Phosphorus	ppm	ASTM D5185m	1150	632	799	662
Zinc	ppm	ASTM D5185m	1350	949	964	845
Sulfur	ppm	ASTM D5185m	4250	3217	2824	2468
Oxidation	Abs/.1mm	*ASTM D7414	>25	26.3	32.1	25.6
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	▲ 4.5	▲ 3.5	8.6
Visc @ 100°C	cSt	ASTM D445	14.4	13.7	14.1	13.7



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RPL0017016 **Received** : 27 Jun 2024
Lab Number : 06222081 **Tested** : 28 Jun 2024
Unique Number : 11100278 **Diagnosed** : 28 Jun 2024 - Sean Felton
Test Package : FLEET

RTL PACLEASE - 7008 - Phoenix
 625 South 27th Ave
 Phoenix, AZ
 US 85009
 Contact: Maurice Pilotte
 PilotteM@rushenterprises.com
 T: (602)566-5712
 F:

Certificate L2367
 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)