



WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
2330
 Component
Diesel Engine
 Fluid
ROYAL PURPLE MOTOR OIL 15W40 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0720006	WC0719863	WC0719927
Sample Date		Client Info		19 Apr 2024	18 Nov 2023	20 May 2023
Machine Age	mls	Client Info		219131	171582	122044
Oil Age	mls	Client Info		100000	50000	100000
Filter Age	mls	Client Info		50000	50000	50000
Oil Changed		Client Info		Changed	Not 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	91	47	88
Chromium	ppm	ASTM D5185m	>20	4	2	5
Nickel	ppm	ASTM D5185m	>4	1	<1	1
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	30	22	62
Lead	ppm	ASTM D5185m	>40	<1	0	<1
Copper	ppm	ASTM D5185m	>330	132	114	68
Tin	ppm	ASTM D5185m	>15	3	1	2
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

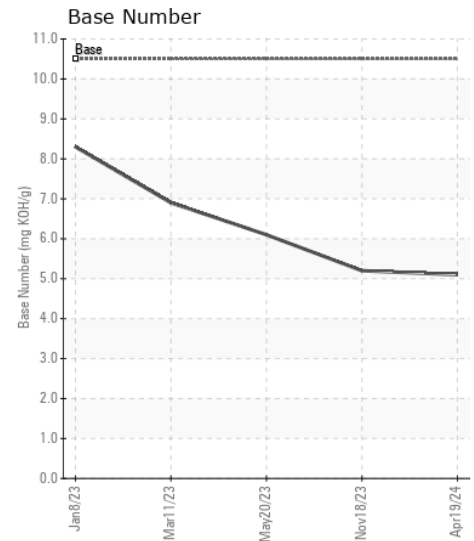
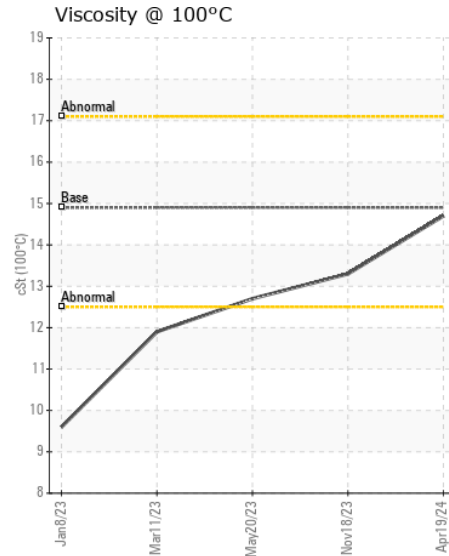
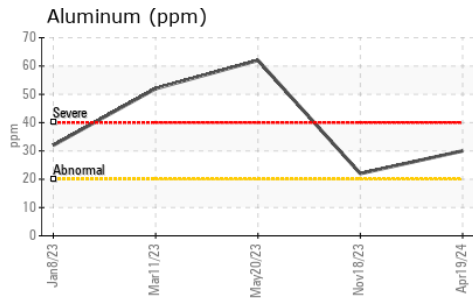
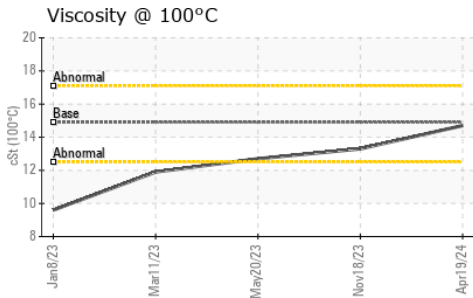
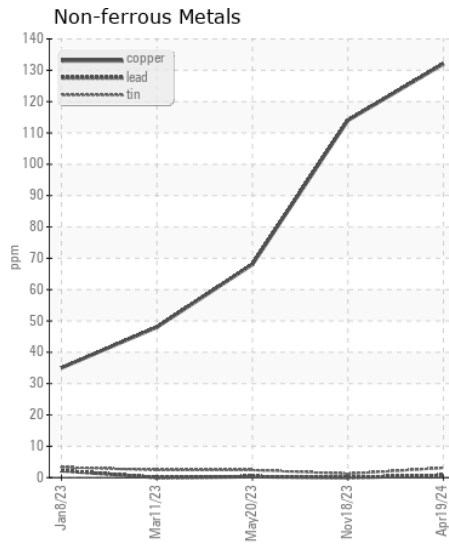
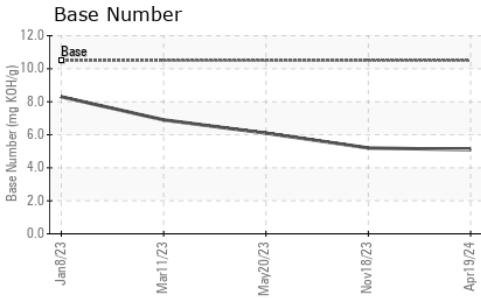
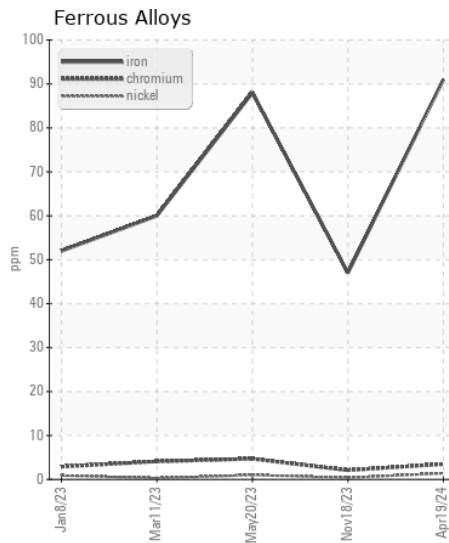
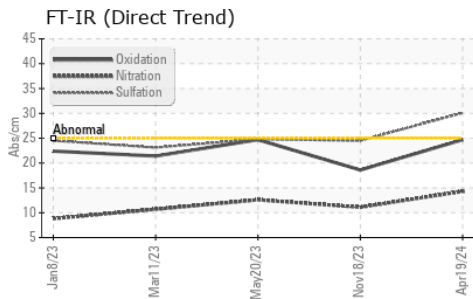
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	10	8	9
Potassium	ppm	ASTM D5185m	>20	67	45	132
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	2.8	1.6	1.2
Nitration	Abs/cm	*ASTM D7624	>20	14.3	11.1	12.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	30.1	24.5	24.8
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 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	3	4
Boron	ppm	ASTM D5185m	0	0	0	0
Barium	ppm	ASTM D5185m	0	<1	0	0
Molybdenum	ppm	ASTM D5185m	100	11	9	54
Manganese	ppm	ASTM D5185m		2	<1	2
Magnesium	ppm	ASTM D5185m	60	149	169	795
Calcium	ppm	ASTM D5185m	3050	2446	2342	1720
Phosphorus	ppm	ASTM D5185m	1050	979	925	1006
Zinc	ppm	ASTM D5185m	1200	1142	1191	1250
Sulfur	ppm	ASTM D5185m	12500	2821	2942	2824
Oxidation	Abs/.1mm	*ASTM D7414	>25	24.7	18.6	24.7
Base Number (BN)	mg KOH/g	ASTM D2896	10.5	5.1	5.2	6.1
Visc @ 100°C	cSt	ASTM D445	14.9	14.7	13.3	12.7



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0720006
Lab Number : 06219214
Unique Number : 11097411
Test Package : FLEET

Received : 24 Jun 2024
Tested : 25 Jun 2024
Diagnosed : 26 Jun 2024 - Jonathan Hester

DILLON TRANSPORTATION
 4445 NORTH INTERSTATE WAY
 KINGMAN, AZ
 US 86401
 Contact: T LAMOREAUX
 t.lamoreaux@dillontransportation.com

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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F: