



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
2315
 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		WC0719937	WC0719931	WC0537278
Sample Date		Client Info		05 Jan 2024	21 Jul 2023	14 Nov 2022
Machine Age	mls	Client Info		0	175057	74829
Oil Age	mls	Client Info		100000	50000	50000
Filter Age	mls	Client Info		50000	50000	50000
Oil Changed		Client Info		N/A	Not Changd	Not Changd
Filter Changed		Client Info		N/A	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	85	48	35
Chromium	ppm	ASTM D5185m	>20	4	2	3
Nickel	ppm	ASTM D5185m	>4	<1	<1	1
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	17	8	20
Lead	ppm	ASTM D5185m	>40	<1	<1	13
Copper	ppm	ASTM D5185m	>330	63	57	333
Tin	ppm	ASTM D5185m	>15	4	2	4
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

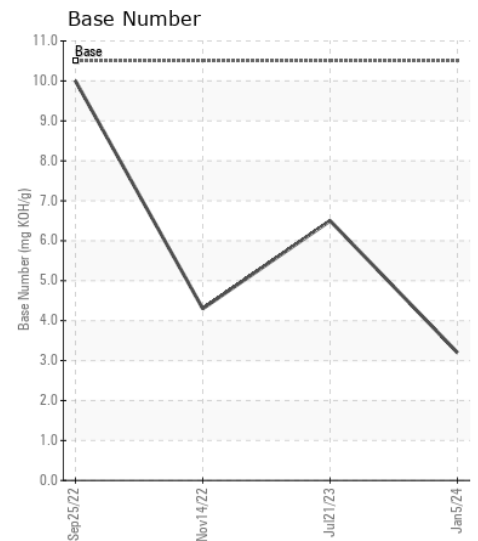
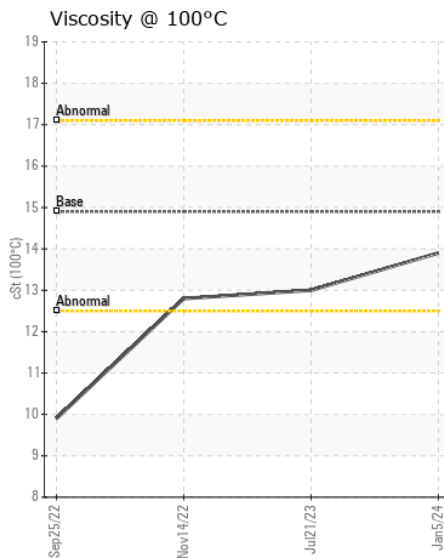
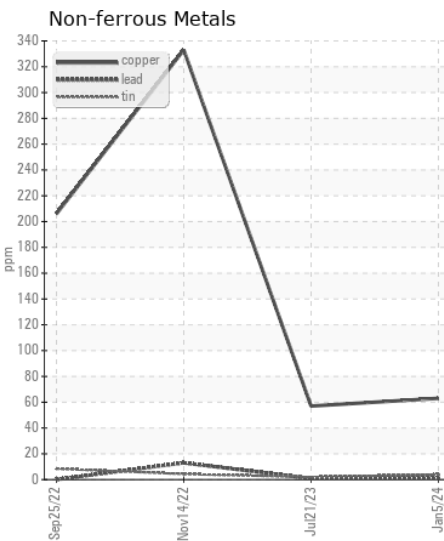
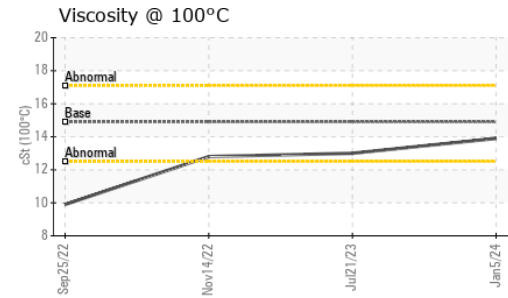
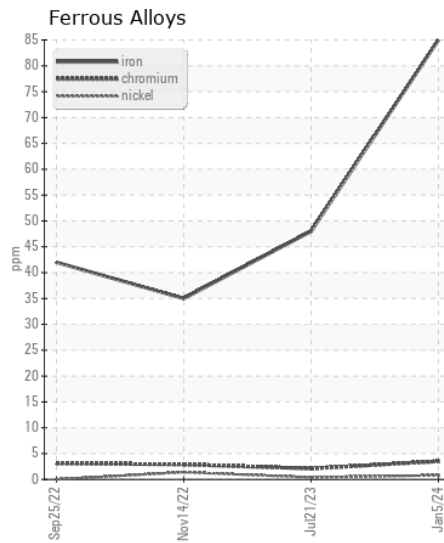
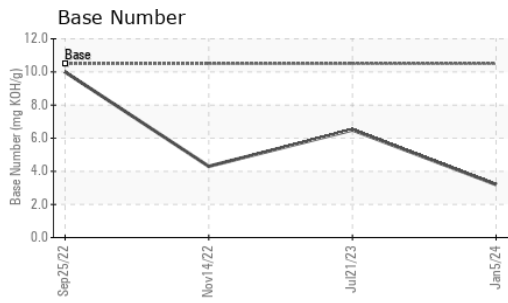
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	8	5	8
Potassium	ppm	ASTM D5185m	>20	35	23	44
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	1.7	1	0.9
Nitration	Abs/cm	*ASTM D7624	>20	17.0	11.5	10.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	29.3	22.8	24.4
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. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		4	2	2
Boron	ppm	ASTM D5185m	0	0	0	3
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	100	57	56	7
Manganese	ppm	ASTM D5185m		2	1	1
Magnesium	ppm	ASTM D5185m	60	845	901	83
Calcium	ppm	ASTM D5185m	3050	1481	1511	2470
Phosphorus	ppm	ASTM D5185m	1050	976	1007	855
Zinc	ppm	ASTM D5185m	1200	1283	1352	1061
Sulfur	ppm	ASTM D5185m	12500	2207	2500	2950
Oxidation	Abs/.1mm	*ASTM D7414	>25	34.0	21.5	18.9
Base Number (BN)	mg KOH/g	ASTM D2896	10.5	3.2	6.5	4.3
Visc @ 100°C	cSt	ASTM D445	14.9	13.9	13.0	12.8



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0719937 **Received** : 16 Jan 2024
Lab Number : 06061855 **Diagnosed** : 18 Jan 2024
Unique Number : 10833237 **Diagnostician** : Don Baldrige
Test Package : FLEET

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: