



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
EGR-3112 #2 SHIP SERVICE GEN (S/N 1016043707)

Component
Diesel Engine

Fluid
SHELL ROTELLA T4 15W40 (55 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0739315	WC0827872	WC0827884
Sample Date		Client Info		10 Feb 2024	20 Jan 2024	30 Dec 2023
Machine Age	hrs	Client Info		34800	34400	34000
Oil Age	hrs	Client Info		400	400	400
Filter Age	hrs	Client Info		400	400	400
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	MARGINAL	MARGINAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	3	4	9
Chromium	ppm	ASTM D5185(m)	>20	0	0	0
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	<1	0	0
Aluminum	ppm	ASTM D5185(m)	>20	1	<1	1
Lead	ppm	ASTM D5185(m)	>40	0	<1	1
Copper	ppm	ASTM D5185(m)	>330	<1	<1	1
Tin	ppm	ASTM D5185(m)	>15	0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

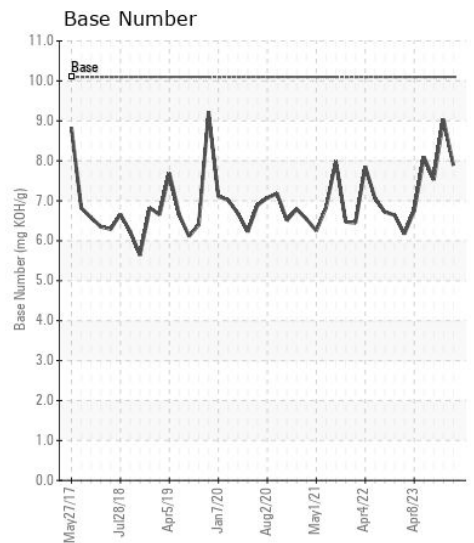
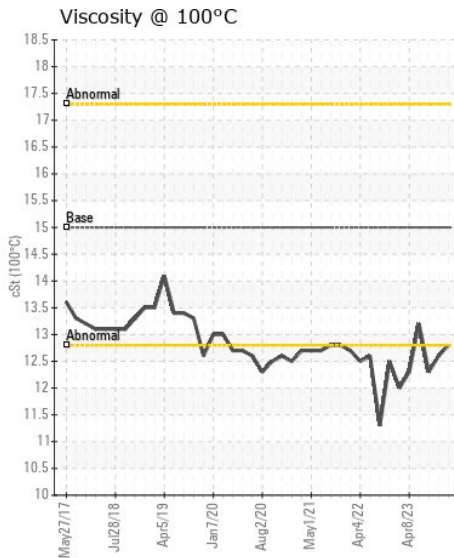
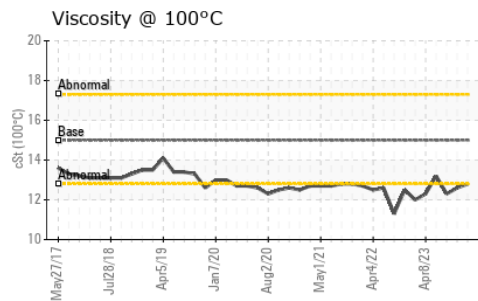
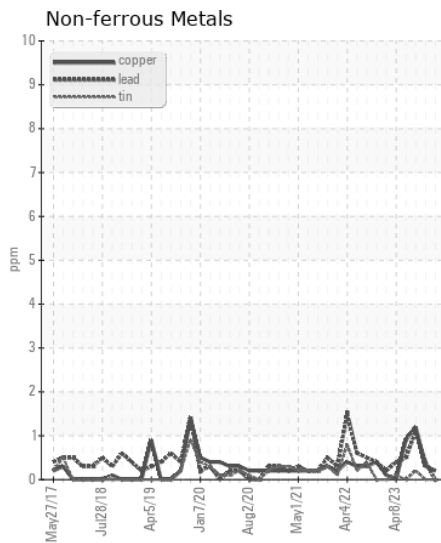
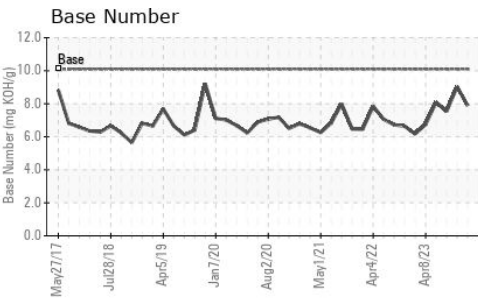
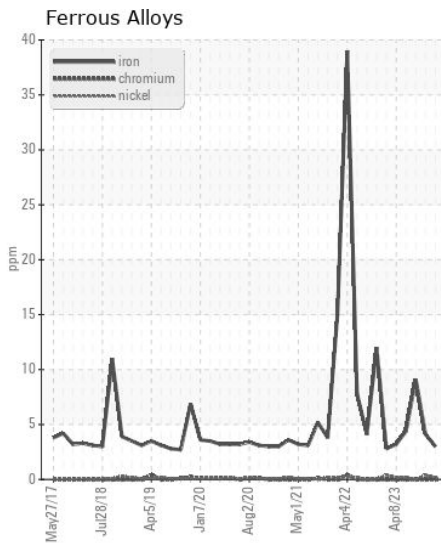
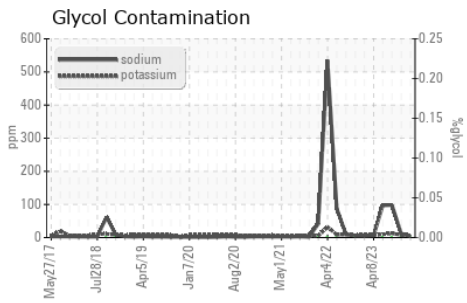
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	2	2	2
Potassium	ppm	ASTM D5185(m)	>20	7	8	13
Fuel		WC Method	>5	<1.0	▲ 2.7	▲ 3.1
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	ASTM D7922*		0.0	0.0	0.0
Soot %	%	ASTM D7844*	>3	0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	7.0	6.8	7.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.4	20.5	20.4
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 D5185(m)		4	12	98
Boron	ppm	ASTM D5185(m)		146	145	157
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		2	2	1
Manganese	ppm	ASTM D5185(m)		0	0	0
Magnesium	ppm	ASTM D5185(m)		17	18	31
Calcium	ppm	ASTM D5185(m)		2164	2187	2143
Phosphorus	ppm	ASTM D5185(m)		930	927	931
Zinc	ppm	ASTM D5185(m)		1103	1118	1105
Sulfur	ppm	ASTM D5185(m)		2996	3133	2993
Oxidation	Abs/.1mm	ASTM D7414*	>25	16.5	16.3	16.2
Base Number (BN)	mg KOH/g	ASTM D2896*	10.1	7.89	9.03	7.53
Visc @ 100°C	cSt	ASTM D7279(m)	15	12.8	12.6	12.3



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0739315 **Received** : 07 Mar 2024
Lab Number : 02620392 **Tested** : 08 Mar 2024
Unique Number : 5737502 **Diagnosed** : 08 Mar 2024 - Wes Davis
Test Package : MAR 2 (Additional Tests: Glycol)

DFO, CCGS EARL GREY
 PO BOX 1006, 1 CHALLENGER DR.
 DARTMOUTH, NS
 CA B2Y 4A2
 Contact: Chief Engineer
 earlgreyCE@EGR.ccs-ngcc.gc.ca
 T: (902)456-9285
 F: (902)456-9285

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.