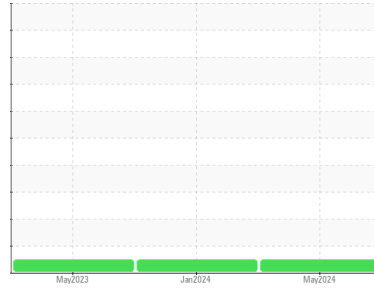


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
DIESEL GENERATING UNITS
Machine Id
CUMMINS EMERGENCY GENERATOR (CAL009) (S/N 22337991)
Component
Auxiliary Engine
Fluid
MOBIL DELVAC 1300 SUPER15W40 (100 LTR)

DIAGNOSIS

Recommendation

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

Additive levels indicate the addition of a different brand, or type of oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			PC0081259	PC0076334	PC0011812
Sample Date	Client Info			17 May 2024	08 Jan 2024	01 May 2023
Machine Age	hrs	Client Info		19	19	18
Oil Age	hrs	Client Info		20	19	18
Oil Changed	Client Info			N/A	N/A	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>4.0		<1.0	<1.0	<1.0
Water	WC Method	>0.1		NEG	NEG	NEG
Glycol	WC Method			NEG	NEG	NEG

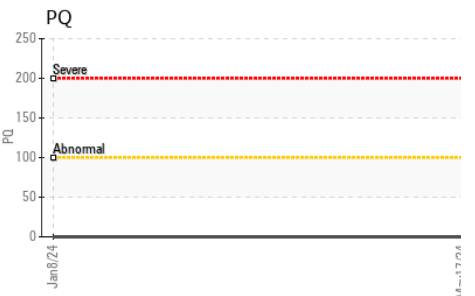
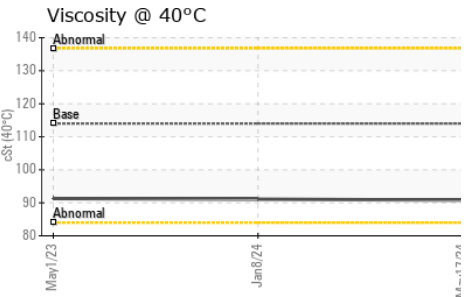
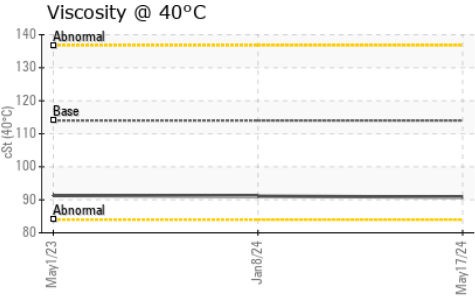
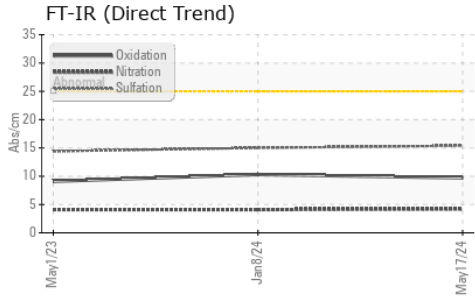
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184*		0	0	---
Iron	ppm	ASTM D5185(m)	>35	4	4	4
Chromium	ppm	ASTM D5185(m)	>4	0	<1	0
Nickel	ppm	ASTM D5185(m)	>2	0	0	0
Titanium	ppm	ASTM D5185(m)	>2	0	0	<1
Silver	ppm	ASTM D5185(m)	>2	0	2	0
Aluminum	ppm	ASTM D5185(m)	>25	1	2	1
Lead	ppm	ASTM D5185(m)	>7	0	1	1
Copper	ppm	ASTM D5185(m)	>65	13	13	14
Tin	ppm	ASTM D5185(m)	>4	0	<1	<1
Antimony	ppm	ASTM D5185(m)		0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	69	69	72
Barium	ppm	ASTM D5185(m)	0	<1	<1	<1
Molybdenum	ppm	ASTM D5185(m)	0	42	43	43
Manganese	ppm	ASTM D5185(m)		17	19	19
Magnesium	ppm	ASTM D5185(m)	0	740	747	770
Calcium	ppm	ASTM D5185(m)		1458	1435	1463
Phosphorus	ppm	ASTM D5185(m)		1014	1064	1145
Zinc	ppm	ASTM D5185(m)		1176	1192	1205
Sulfur	ppm	ASTM D5185(m)		4119	4501	4523
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>20	35	36	38
Sodium	ppm	ASTM D5185(m)		2	2	2
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	4.2	4.1	4.1
Sulfation	Abs./1mm	ASTM D7415*	>30	15.4	15.0	14.4

OIL ANALYSIS REPORT

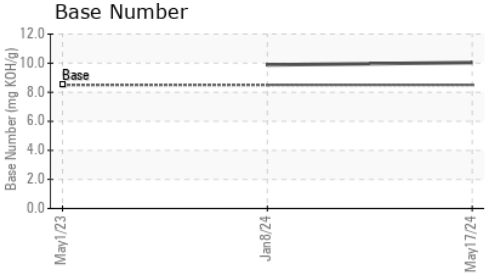
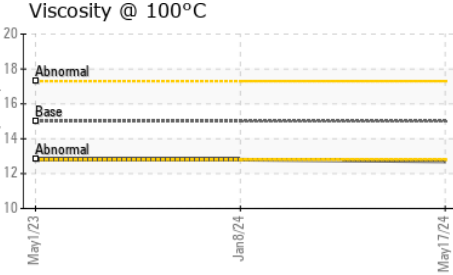
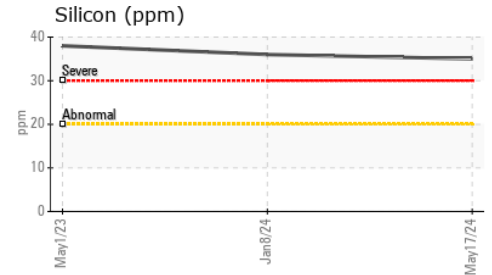
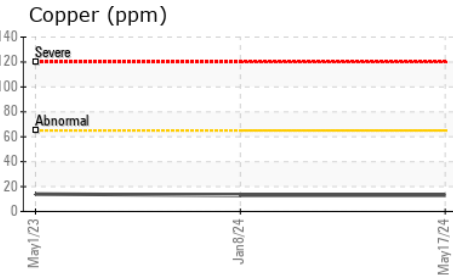
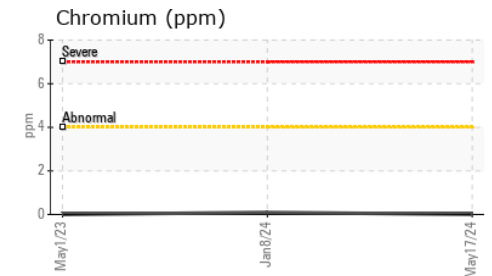
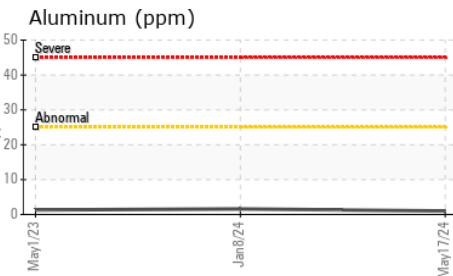
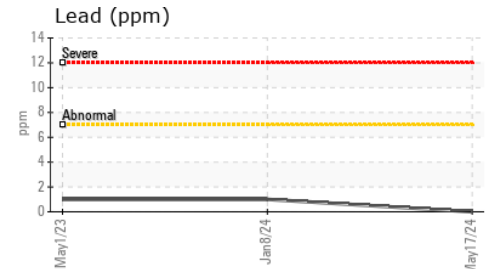
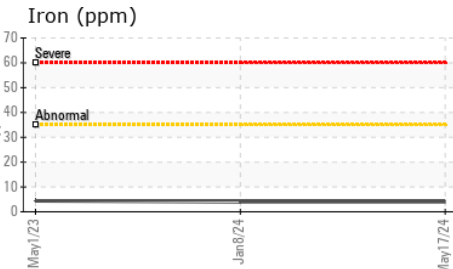


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	9.7	10.3	9.1
Base Number (BN)	mg KOH/g	ASTM D2896*	8.5	10.04	9.88	---

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	114	90.8	91.1	91.3
Visc @ 100°C	cSt	ASTM D7279(m)	15.0	12.7	12.8	12.8
Viscosity Index (VI)	Scale	ASTM D2270*	137	136	137	137

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0081259
Lab Number : **02637825**
Unique Number : 5786987
Test Package : MOB 2 (Additional Tests: KV40, PQ, VI)

Ocean Choice International - MV Calvert
 1315 Topsail Rd, P.O. Box 8190
 St. John's, NL
 CA A1B 3N4

*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.*

Contact: Calvert Engine Control Room
 calvertengine@oceanchoice.com
 T:
 F: