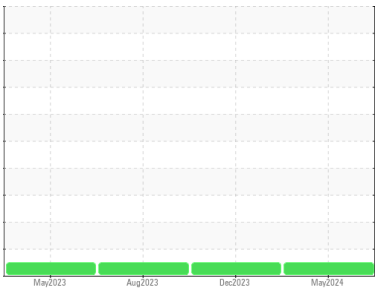
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Area
DIESEL GENERATING UNITS
Machine Id
CUMMINS AUXILIARY GENERATOR #1 (CAL007) (S/N 33217103)
Component
Auxiliary Engine
Fluid
MOBIL DELVAC 1300 SUPER15W40 (500 LTR)

DIAGNOSIS

Recommendation
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
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		**PC0080233**	PC0011819	PC0010706
Sample Date		Client Info		**17 May 2024**	29 Dec 2023	09 Aug 2023
Machine Age	hrs	Client Info		**6877**	6331	5789
Oil Age	hrs	Client Info		**6877**	6331	5789
Oil Changed		Client Info		**N/A**	N/A	N/A
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**	---	---
Iron	ppm	ASTM D5185(m)	>100	**2**	2	3
Chromium	ppm	ASTM D5185(m)	>20	**0**	0	0
Nickel	ppm	ASTM D5185(m)	>2	**0**	0	0
Titanium	ppm	ASTM D5185(m)	>2	**0**	0	0
Silver	ppm	ASTM D5185(m)	>2	**0**	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	**<1**	1	<1
Lead	ppm	ASTM D5185(m)	>40	**<1**	<1	3
Copper	ppm	ASTM D5185(m)	>330	**<1**	1	<1
Tin	ppm	ASTM D5185(m)	>15	**0**	0	0
Antimony	ppm	ASTM D5185(m)		**0**	0	0
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Beryllium	ppm	ASTM D5185(m)		**0**	0	0
Cadmium	ppm	ASTM D5185(m)		**0**	0	0

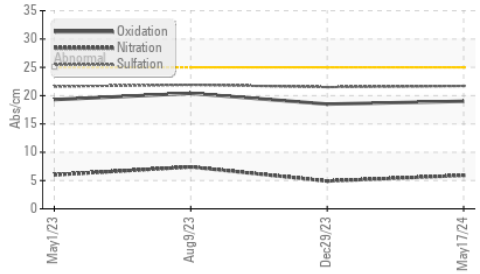
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	**54**	51	46
Barium	ppm	ASTM D5185(m)	0	**0**	0	<1
Molybdenum	ppm	ASTM D5185(m)	0	**40**	38	43
Manganese	ppm	ASTM D5185(m)		**<1**	0	0
Magnesium	ppm	ASTM D5185(m)	0	**532**	504	564
Calcium	ppm	ASTM D5185(m)		**1694**	1577	1708
Phosphorus	ppm	ASTM D5185(m)		**751**	732	766
Zinc	ppm	ASTM D5185(m)		**875**	822	923
Sulfur	ppm	ASTM D5185(m)		**2135**	2189	2172
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**3**	7	5
Sodium	ppm	ASTM D5185(m)		**2**	2	2
Potassium	ppm	ASTM D5185(m)	>20	**0**	<1	0

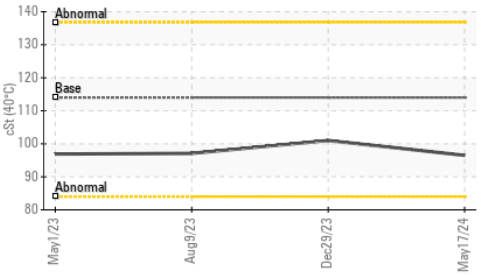
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		**0**	0	0
Nitration	Abs/cm	ASTM D7624*	>20	**5.9**	4.9	7.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	**21.7**	21.5	21.9

OIL ANALYSIS REPORT

FT-IR (Direct Trend)

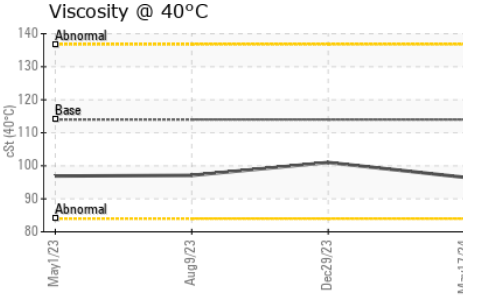


Viscosity @ 40°C



PQ

Viscosity @ 40°C



PQ

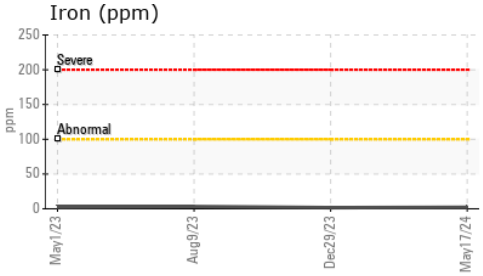
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**19.0**	18.5	20.4
Base Number (BN)	mg KOH/g	ASTM D2896*	8.5	**9.33**	---	---

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

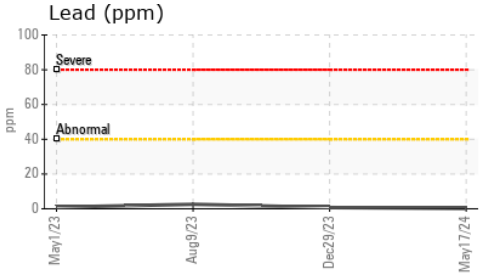
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	114	**96.5**	101	97.1
Visc @ 100°C	cSt	ASTM D7279(m)	15.0	**13.1**	13.6	13.1
Viscosity Index (VI)	Scale	ASTM D2270*	137	**133**	134	132

GRAPHS

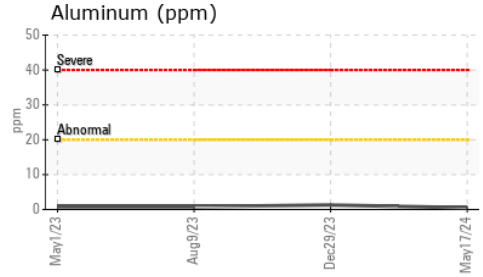
Iron (ppm)



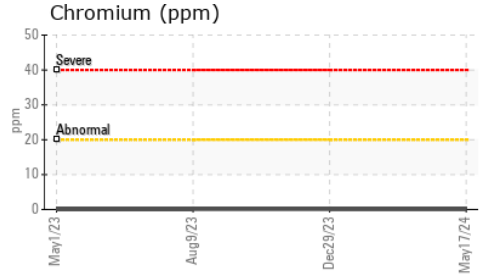
Lead (ppm)



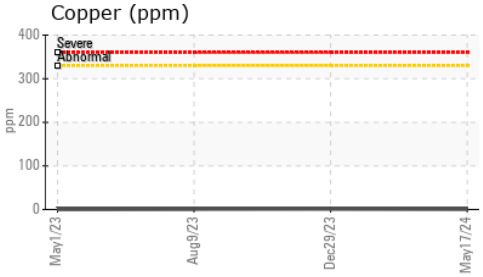
Aluminum (ppm)



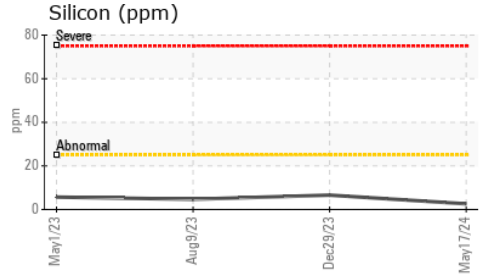
Chromium (ppm)



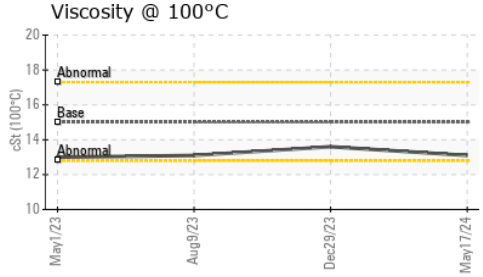
Copper (ppm)



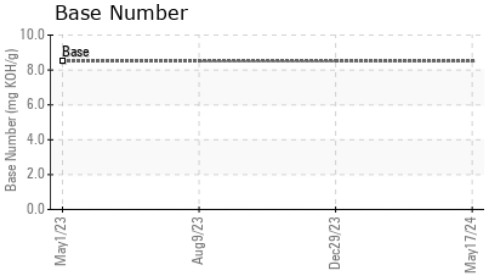
Silicon (ppm)



Viscosity @ 100°C



Base Number



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0080233
Lab Number : 02637827
Unique Number : 5786989
Test Package : MOB 2 (Additional Tests: KV40, PQ, VI)

Received : 28 May 2024
Tested : 29 May 2024
Diagnosed : 29 May 2024 - Wes Davis

Ocean Choice International - MV Calvert
1315 Topsail Rd, P.O. Box 8190
St. John`s, NL
CA A1B 3N4
Contact: Calvert Engine Control Room
calvertengine@oceanchoice.com
T:
F:

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.

Report Id: MVCALVERT [WCAMIS] 02637827 (Generated: 05/29/2024 09:29:58) Rev: 1

Submitted By: Alf Hartery