WEAR CHECK
OIL ANALYSIS REPORT

WEAR	**NORMAL**
CONTAMINATION	**NORMAL**
FLUID CONDITION	**NORMAL**

Machine Id
416
Component
Diesel Engine
Fluid
SHELL 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0916573	---	---
Sample Date		Client Info		15 Apr 2024	---	---
Machine Age	hrs	Client Info		4215	---	---
Oil Age	hrs	Client Info		180	---	---
Filter Age	hrs	Client Info		180	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				NORMAL	---	---

WEAR

All component wear rates are normal.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Iron	ppm	ASTM D5185m	>100	14	---	---
Chromium	ppm	ASTM D5185m	>20	1	---	---
Nickel	ppm	ASTM D5185m	>4	0	---	---
Titanium	ppm	ASTM D5185m		3	---	---
Silver	ppm	ASTM D5185m	>3	<1	---	---
Aluminum	ppm	ASTM D5185m	>20	2	---	---
Lead	ppm	ASTM D5185m	>40	<1	---	---
Copper	ppm	ASTM D5185m	>330	4	---	---
Tin	ppm	ASTM D5185m	>15	0	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

There is no indication of any contamination in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Silicon	ppm	ASTM D5185m	>25	4	---	---
Potassium	ppm	ASTM D5185m	>20	0	---	---
Fuel		WC Method	>5	<1.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>3	0.4	---	---
Nitration	Abs/cm	*ASTM D7624	>20	6.0	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.3	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	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.

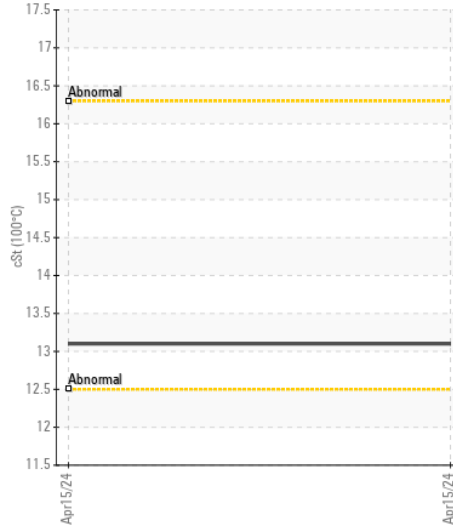| Test	UOM	Method	Limit/Abn	Current	History1	History2
Sodium	ppm	ASTM D5185m	>150	5	---	---
Boron	ppm	ASTM D5185m		26	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		57	---	---
Manganese	ppm	ASTM D5185m		<1	---	---
Magnesium	ppm	ASTM D5185m		878	---	---
Calcium	ppm	ASTM D5185m		1390	---	---
Phosphorus	ppm	ASTM D5185m		1077	---	---
Zinc	ppm	ASTM D5185m		1281	---	---
Sulfur	ppm	ASTM D5185m		3953	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	12.7	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		9.2	---	---
Visc @ 100°C	cSt	ASTM D445		13.1	---	---

FT-IR (Direct Trend)
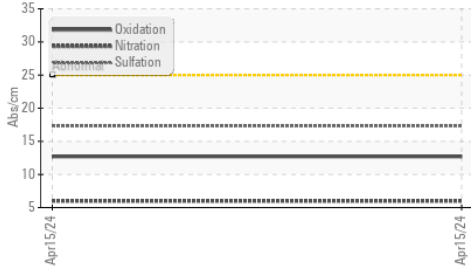
Base Number
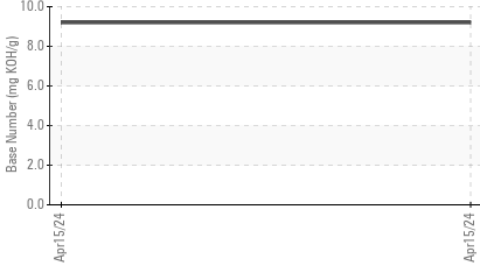
Viscosity @ 100°C
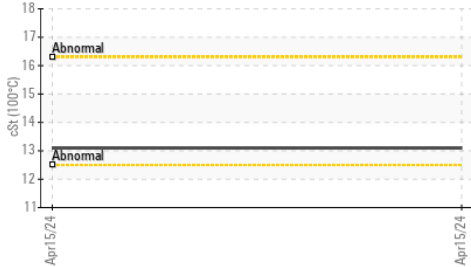
Ferrous Alloys
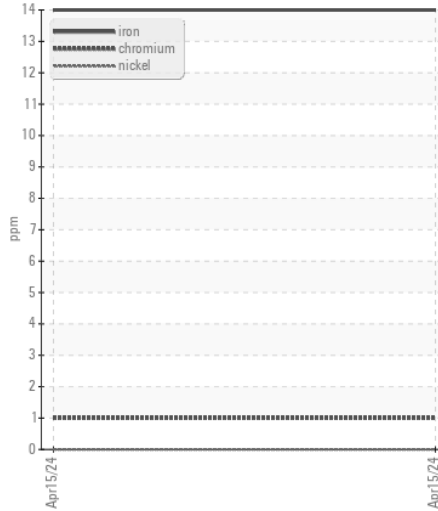
Non-ferrous Metals
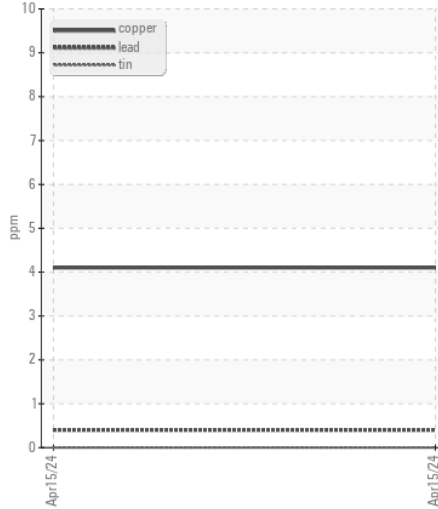
Viscosity @ 100°C

Base Number