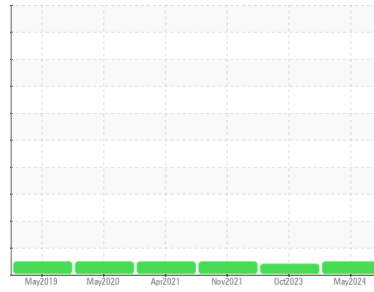




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
GM Seattle Off Raod Shop
 Machine Id
[GM Seattle Off Raod Shop] 24-747
 Component
Diesel Engine
 Fluid
SHELL 15W40 (--- GAL)

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			PE0003031	PE0001989	PE12291070
Sample Date	Client Info			22 May 2024	17 Oct 2023	09 Nov 2021
Machine Age	hrs	Client Info		3919	3627	2332
Oil Age	hrs	Client Info		292	546	216
Oil Changed	Client Info			Changed	Changed	Not Changed
Sample Status				NORMAL	ATTENTION	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>5		<1.0	1.5	<1.0
Water	WC Method	>0.2		NEG	NEG	NEG
Glycol	WC Method			NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	3	6	3
Chromium	ppm	ASTM D5185m	>20	0	0	0
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	1	2	2
Lead	ppm	ASTM D5185m	>40	0	0	1
Copper	ppm	ASTM D5185m	>330	1	5	2
Tin	ppm	ASTM D5185m	>15	0	0	0
Antimony	ppm	ASTM D5185m		---	---	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	---

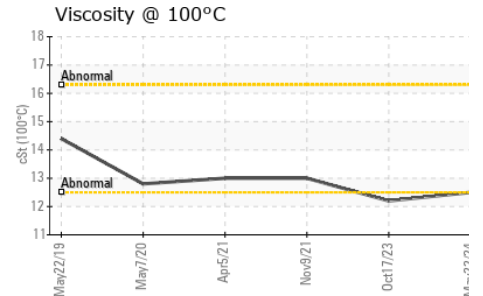
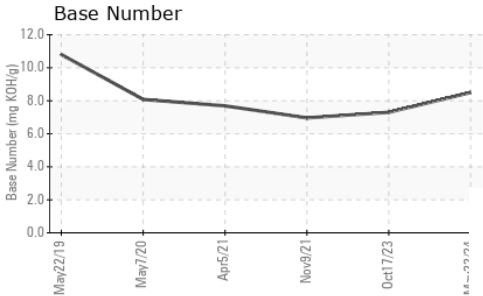
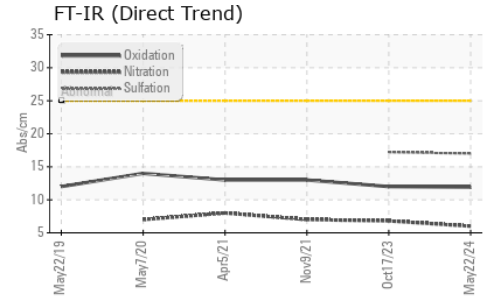
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		50	42	43
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		37	39	37
Manganese	ppm	ASTM D5185m		0	0	---
Magnesium	ppm	ASTM D5185m		510	402	457
Calcium	ppm	ASTM D5185m		1789	1647	1938
Phosphorus	ppm	ASTM D5185m		1029	885	1040
Zinc	ppm	ASTM D5185m		1214	1074	1215
Sulfur	ppm	ASTM D5185m		4105	3174	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	3	4	6
Sodium	ppm	ASTM D5185m	>150	<1	2	1
Potassium	ppm	ASTM D5185m	>20	<1	3	1

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.1	0.1	<0.1
Nitration	Abs/cm	*ASTM D7624	>20	6.0	6.8	7
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.0	17.2	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	11.9	12.0	13
Base Number (BN)	mg KOH/g	ASTM D2896		8.5	7.3	6.96

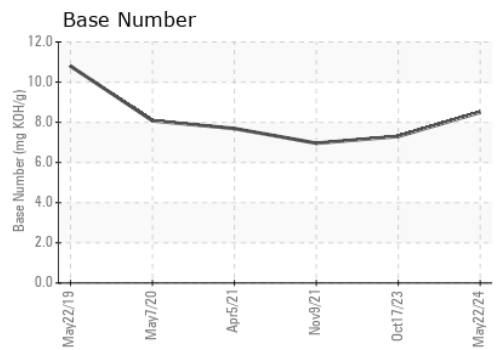
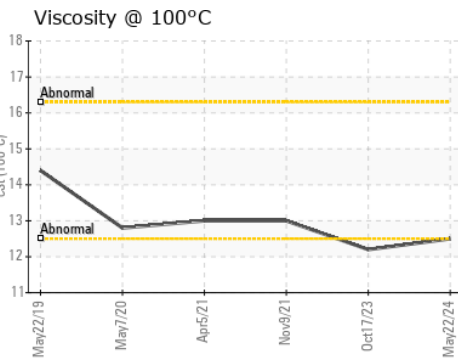
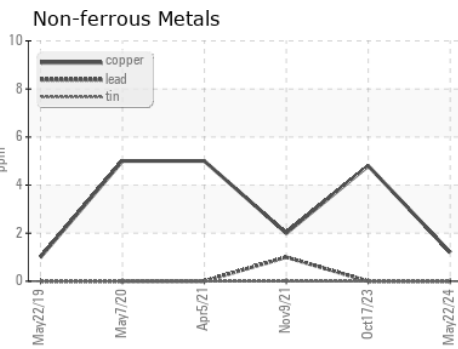
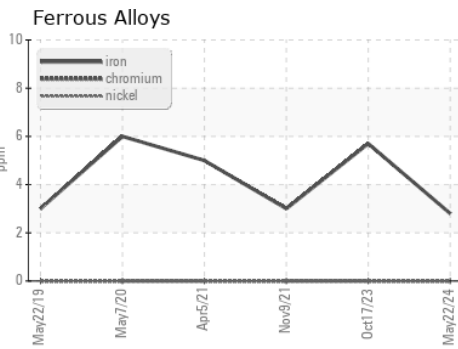
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
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	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	12.5	12.2	13.0

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PE0003031 **Received** : 14 Jun 2024
Lab Number : 06211077 **Tested** : 18 Jun 2024
Unique Number : 11083941 **Diagnosed** : 18 Jun 2024 - Angela Borella
Test Package : CONST (Additional Tests: FT-IR, ICP, KV100, SCREEN, TBN)

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 SEATTLE, WA
 US 98108
 Contact: Jesse Patterson
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 T: 1(866)292-1303
 F:

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)