



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

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

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	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
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Changed	Not Changed
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	ATTENTION	NORMAL

WEAR

All component wear rates are normal.

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
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

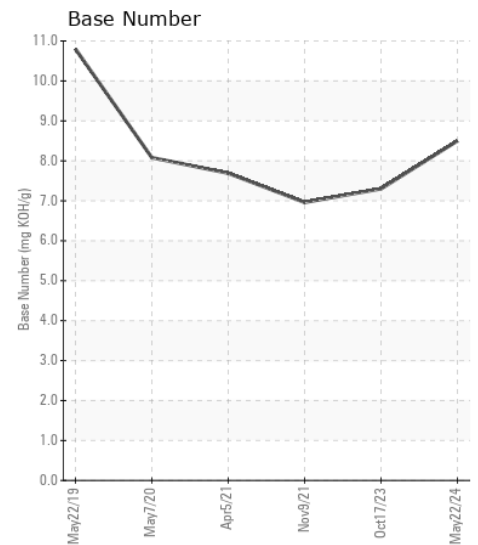
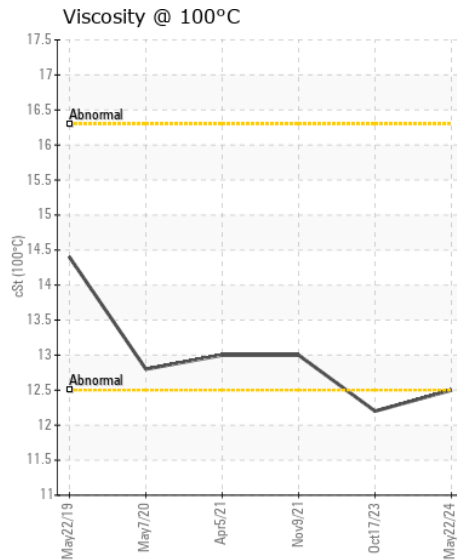
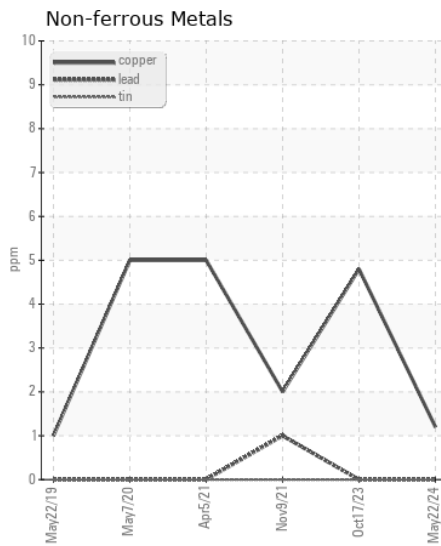
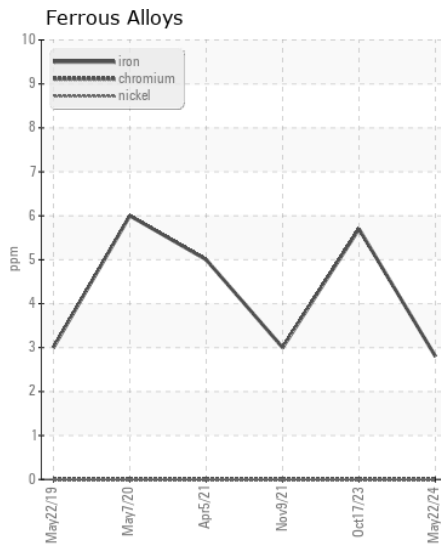
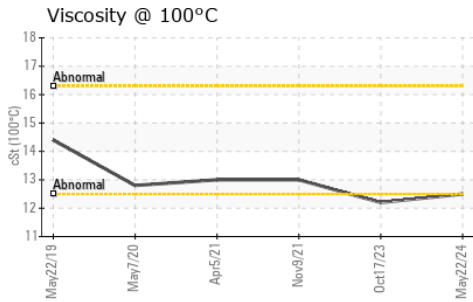
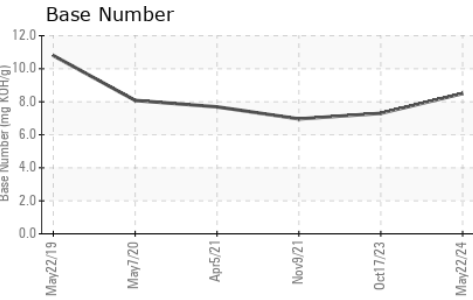
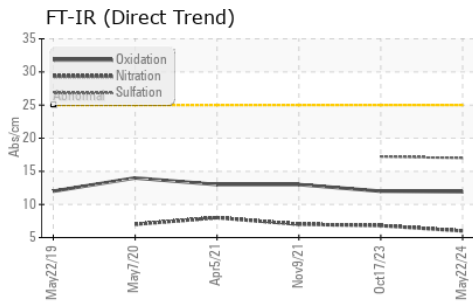
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	3	4	6
Potassium	ppm	ASTM D5185m	>20	<1	3	1
Fuel		WC Method	>5	<1.0	1.5	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
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	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	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 D5185m	>150	<1	2	1
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	---
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
Visc @ 100°C	cSt	ASTM D445		12.5	12.2	13.0



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PE0003031
Lab Number : 06211077
Unique Number : 11083941
Test Package : CONST (Additional Tests: FT-IR, ICP, KV100, SCREEN, TBN)

Gary Merlino Construction - Off Road Shop
 9125 10TH AVE SOUTH
 SEATTLE, WA
 US 98108
 Contact: Jesse Patterson
 oilsamples@gmccinc.com

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)

T: 1(866)292-1303

F: