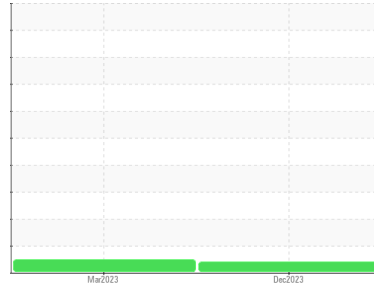




OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Area
GM RENTON DUMP TRUCK SHOP
 Machine Id
[GM RENTON DUMP TRUCK SHOP] 16-763
 Component
Auxiliary Engine
 Fluid
CASTROL CRB Multi 15W-40 CK-4 (--- GAL)

DIAGNOSIS

▲ Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Fuel content negligible. There is no indication of any contamination in the oil.

▲ Fluid Condition

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	PE0002337	PE0001847	---
Sample Date	Client Info	04 Dec 2023	01 Mar 2023	---
Machine Age	hrs	Client Info	1138	520
Oil Age	hrs	Client Info	618	0
Oil Changed	Client Info	Changed	Changed	---
Sample Status		ATTENTION	NORMAL	---

CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method	>0.1	NEG	NEG
Glycol	WC Method		NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>100	12	11
Chromium	ppm	ASTM D5185m	>20	<1	<1
Nickel	ppm	ASTM D5185m	>2	<1	0
Titanium	ppm	ASTM D5185m	>2	<1	0
Silver	ppm	ASTM D5185m	>2	0	0
Aluminum	ppm	ASTM D5185m	>20	2	3
Lead	ppm	ASTM D5185m	>40	4	<1
Copper	ppm	ASTM D5185m	>330	178	16
Tin	ppm	ASTM D5185m	>15	2	<1
Vanadium	ppm	ASTM D5185m		<1	0
Cadmium	ppm	ASTM D5185m		0	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		20	66
Barium	ppm	ASTM D5185m		0	0
Molybdenum	ppm	ASTM D5185m		18	48
Manganese	ppm	ASTM D5185m		<1	2
Magnesium	ppm	ASTM D5185m		193	457
Calcium	ppm	ASTM D5185m		1960	1676
Phosphorus	ppm	ASTM D5185m		965	879
Zinc	ppm	ASTM D5185m		1121	1125
Sulfur	ppm	ASTM D5185m		3221	3209

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>25	5	5
Sodium	ppm	ASTM D5185m		2	1
Potassium	ppm	ASTM D5185m	>20	0	1
Fuel	%	ASTM D3524	>4.0	0.5	<1.0

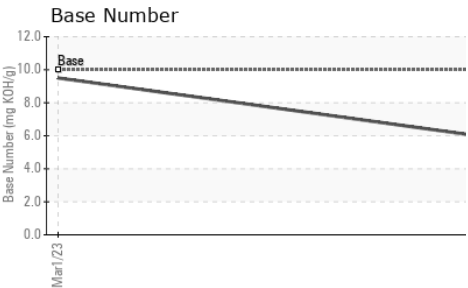
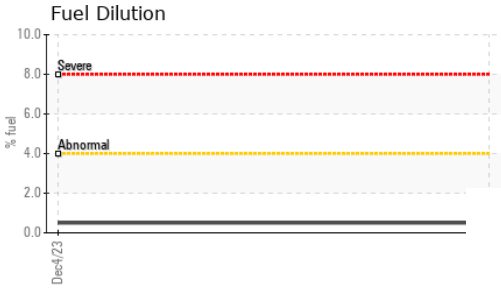
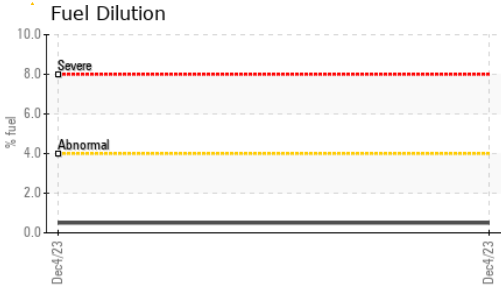
INFRA-RED

method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844		0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	7.5	7.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.3	21.7

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	12.7	19.6
Base Number (BN)	mg KOH/g	ASTM D2896	10	5.9	9.5

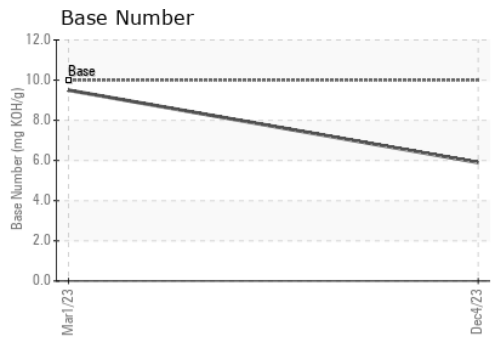
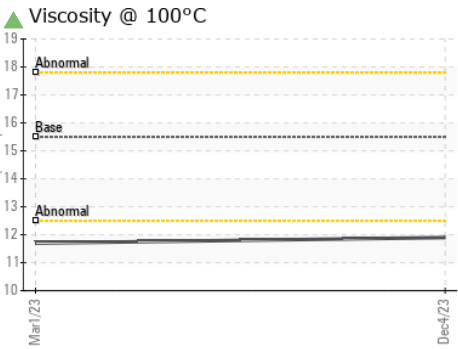
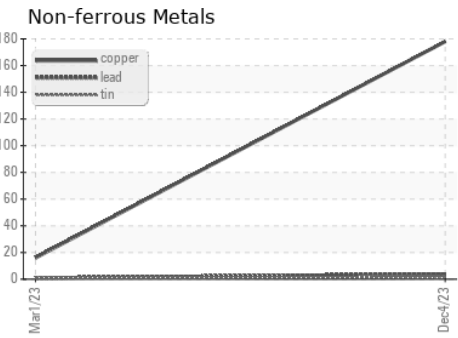
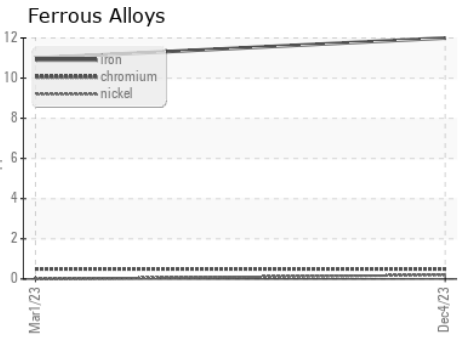
OIL ANALYSIS REPORT



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	>0.1	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.5	▲ 11.9	11.7

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PE0002337 **Recieved** : 12 Jan 2024
Lab Number : 06060122 **Diagnosed** : 16 Jan 2024
Unique Number : 10831504 **Diagnostician** : Doug Bogart

Gary Merlino Construction - Off Road Shop
 9125 10TH AVE SOUTH
 SEATTLE, WA
 US 98108

Test Package : CONST (Additional Tests: FT-IR, FuelDilution, ICP, KV100, PercentFuel, SCREEN, TBN)

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)

Contact: Jesse Patterson
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 T: 1(866)292-1303
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