



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
926069 PETERBILT 320
 Component
Diesel Engine
 Fluid
TIER 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0115284	GFL0115207	GFL0061425
Sample Date		Client Info		17 Jun 2024	10 Jun 2024	21 Feb 2024
Machine Age	hrs	Client Info		0	7614	19007
Oil Age	hrs	Client Info		0	11519	551
Filter Age	hrs	Client Info		0	11519	551
Oil Changed		Client Info		Changed	Changed	Not Changd
Filter Changed		Client Info		Changed	Changed	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>110	<1	9	12
Chromium	ppm	ASTM D5185m	>4	0	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	1	1	1
Lead	ppm	ASTM D5185m	>45	0	<1	0
Copper	ppm	ASTM D5185m	>85	<1	<1	<1
Tin	ppm	ASTM D5185m	>4	<1	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

There is no indication of any contamination in the oil.

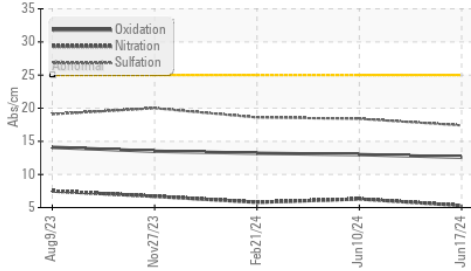
Silicon	ppm	ASTM D5185m	>30	3	8	4
Potassium	ppm	ASTM D5185m	>20	3	4	0
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0.4	0.5
Nitration	Abs/cm	*ASTM D7624	>20	5.3	6.3	5.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.4	18.4	18.6
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

FLUID CONDITION

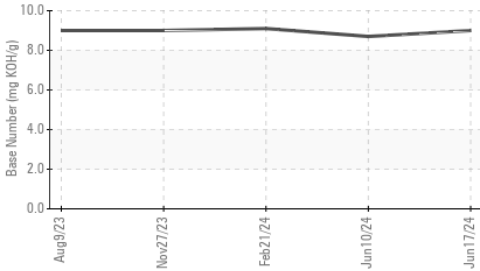
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		2	3	1
Boron	ppm	ASTM D5185m		17	17	12
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		56	55	54
Manganese	ppm	ASTM D5185m		<1	1	<1
Magnesium	ppm	ASTM D5185m		892	800	807
Calcium	ppm	ASTM D5185m		1104	1142	1024
Phosphorus	ppm	ASTM D5185m		1033	947	927
Zinc	ppm	ASTM D5185m		1228	1163	992
Sulfur	ppm	ASTM D5185m		3808	3495	2944
Oxidation	Abs/.1mm	*ASTM D7414	>25	12.6	13.0	13.2
Base Number (BN)	mg KOH/g	ASTM D2896		9.0	8.7	9.1
Visc @ 100°C	cSt	ASTM D445		13.2	12.6	13.7

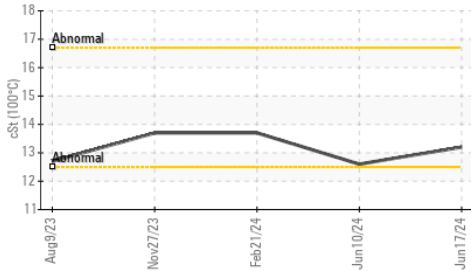
FT-IR (Direct Trend)



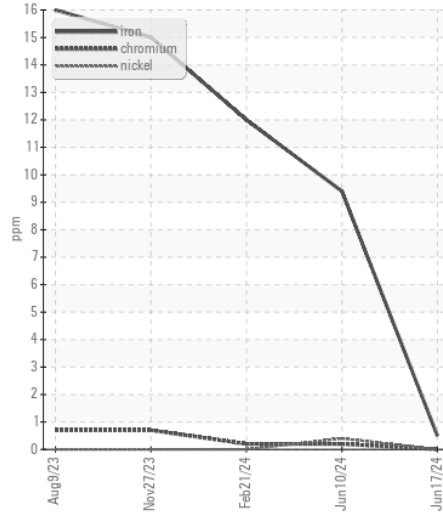
Base Number



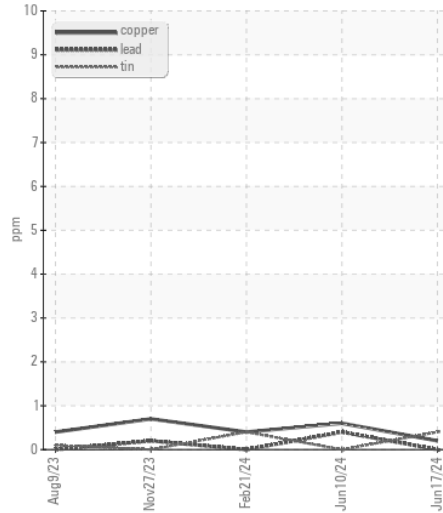
Viscosity @ 100°C



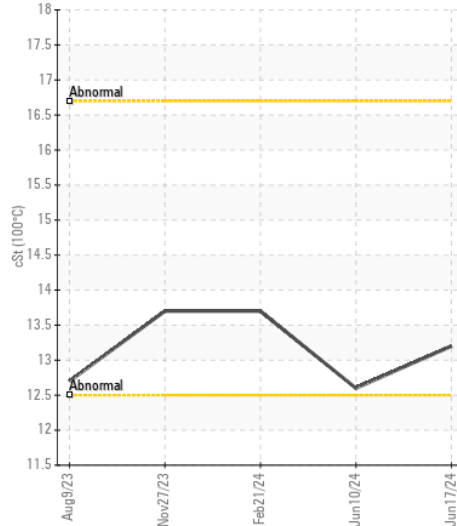
Ferrous Alloys



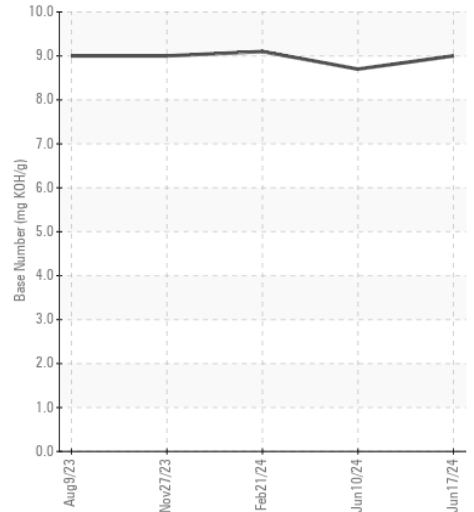
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0115284
Lab Number : 06217565
Unique Number : 11090429
Test Package : FLEET

Received : 21 Jun 2024
Tested : 24 Jun 2024
Diagnosed : 24 Jun 2024 - Wes Davis

GFL Environmental - 642- Grand Rapids Hauling
 5826 Alden Nash Ave SE
 Lowell, MI
 US 49331

Contact: Josh Vanvolkinburg
 jvanvolkinburg@gflenv.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)

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F: