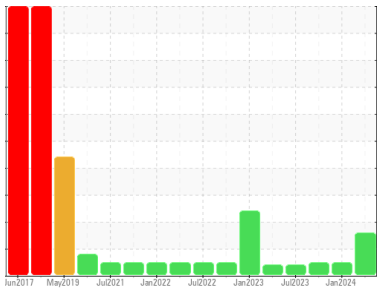
OIL ANALYSIS REPORT

Sample Rating Trend



WATER

Area
UTILITIES
Machine Id
OS1-GEN
Component
Auxilary Power Unit Natural Gas Engine
Fluid
DIESEL ENGINE OIL SAE 5W30 (5 QTS)

DIAGNOSIS

Recommendation
No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
There is a light concentration of water present in the oil.

Fluid Condition
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0840375**	WC0840386	WC0840390
Sample Date		Client Info		**22 Apr 2024**	22 Jan 2024	13 Nov 2023
Machine Age	hrs	Client Info		**224**	221	217
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	NORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	**7**	4	5
Chromium	ppm	ASTM D5185m	>4	**<1**	<1	0
Nickel	ppm	ASTM D5185m	>2	**<1**	0	0
Titanium	ppm	ASTM D5185m		**<1**	<1	0
Silver	ppm	ASTM D5185m	>3	**0**	0	0
Aluminum	ppm	ASTM D5185m	>9	**3**	1	1
Lead	ppm	ASTM D5185m	>30	**11**	10	9
Copper	ppm	ASTM D5185m	>35	**3**	2	3
Tin	ppm	ASTM D5185m	>4	**<1**	<1	0
Vanadium	ppm	ASTM D5185m		**<1**	<1	0
Cadmium	ppm	ASTM D5185m		**<1**	<1	<1

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	**139**	120	148
Barium	ppm	ASTM D5185m	10	**0**	0	7
Molybdenum	ppm	ASTM D5185m	100	**121**	116	130
Manganese	ppm	ASTM D5185m		**<1**	<1	0
Magnesium	ppm	ASTM D5185m	450	**522**	516	517
Calcium	ppm	ASTM D5185m	3000	**1059**	1071	1113
Phosphorus	ppm	ASTM D5185m	1150	**681**	655	728
Zinc	ppm	ASTM D5185m	1350	**775**	772	758
Sulfur	ppm	ASTM D5185m	4250	**3031**	2406	2554

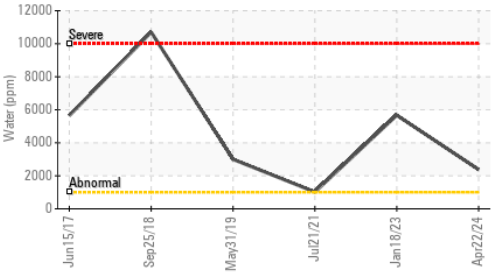
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>+100	**13**	10	11
Sodium	ppm	ASTM D5185m		**5**	2	0
Potassium	ppm	ASTM D5185m	>20	**1**	2	1
Water	%	ASTM D6304	>0.1	▲ **0.238**	---	---
ppm Water	ppm	ASTM D6304	>1000	▲ **2380**	---	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		**0.1**	0	0
Nitration	Abs/cm	*ASTM D7624	>20	**5.6**	5.2	5.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	**14.1**	14.5	14.8

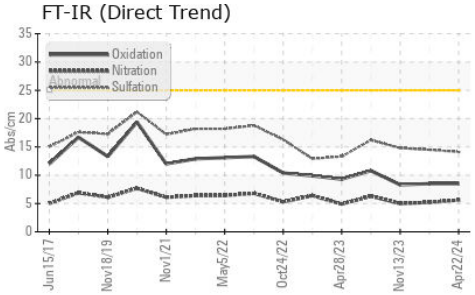
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**8.5**	8.5	8.3
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	**7.29**	7.74	7.46

OIL ANALYSIS REPORT

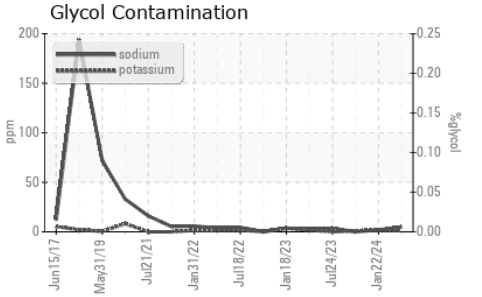
Water (KF)



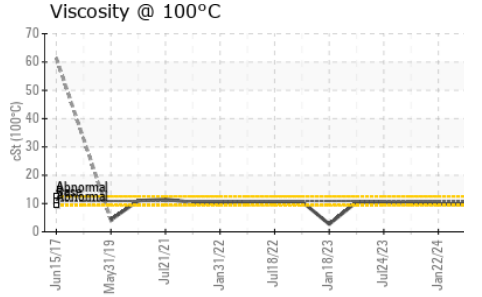
FT-IR (Direct Trend)



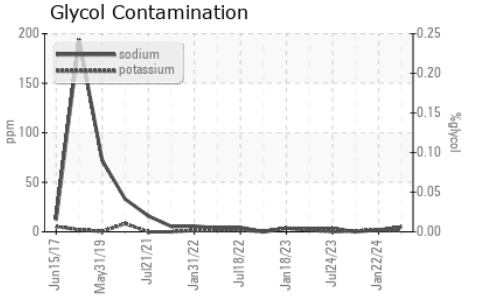
Glycol Contamination



Viscosity @ 100°C



Glycol Contamination

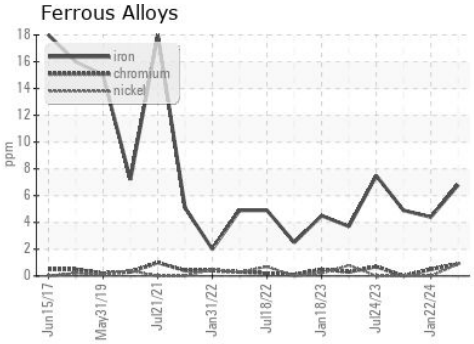


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	▲ **0.2%**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

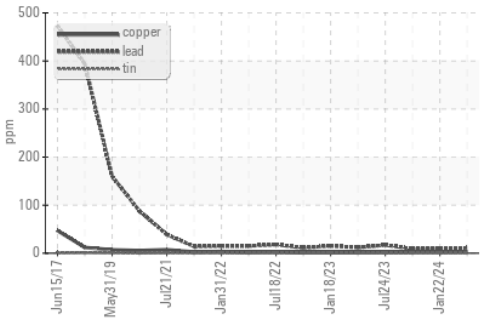
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	10.9	**9.7**	9.8	9.9

GRAPHS

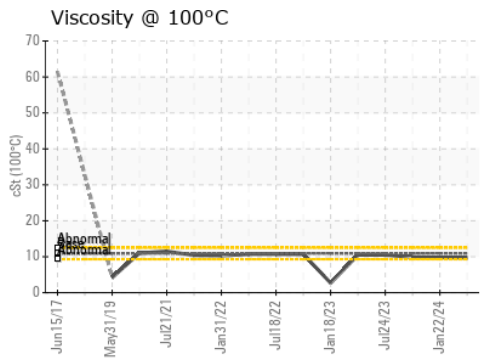
Ferrous Alloys



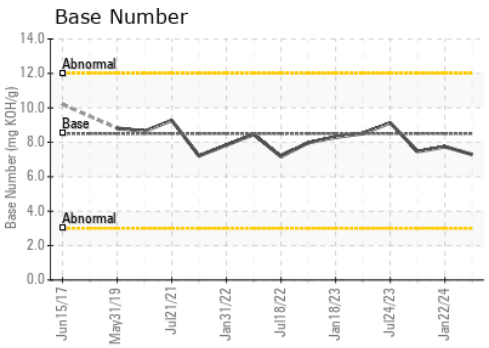
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0840375
Lab Number : 06160578
Unique Number : 10996001
Test Package : IND 2 (Additional Tests: Glycol, KF)

Received : 25 Apr 2024
Tested : 26 Apr 2024
Diagnosed : 26 Apr 2024 - Sean Felton

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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