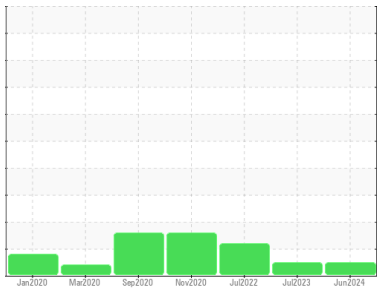
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Area
Garyville
Machine Id
[Garyville] Hydraulic - Steering
Component
Hydraulic System
Fluid
{not provided} (--- GAL)

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear
All component wear rates are normal.

Contamination
The water content is negligible. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

Fluid Condition
The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0769485**	WC0683220	WC0659539
Sample Date		Client Info		**03 Jun 2024**	04 Jul 2023	02 Jul 2022
Machine Age	hrs	Client Info		**0**	0	4502
Oil Age	hrs	Client Info		**0**	0	3479
Oil Changed		Client Info		**N/A**	N/A	Filtered
Sample Status				**NORMAL**	NORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	**2**	10	12
Chromium	ppm	ASTM D5185m	>20	**0**	<1	<1
Nickel	ppm	ASTM D5185m	>20	**0**	0	0
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>20	**<1**	<1	0
Lead	ppm	ASTM D5185m	>20	**0**	<1	0
Copper	ppm	ASTM D5185m	>20	**2**	3	2
Tin	ppm	ASTM D5185m	>20	**<1**	<1	0
Antimony	ppm	ASTM D5185m		**---**	---	---
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

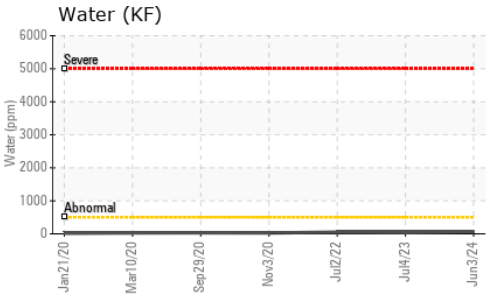
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**1**	0	3
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**<1**	1	<1
Manganese	ppm	ASTM D5185m		**<1**	<1	<1
Magnesium	ppm	ASTM D5185m		**0**	8	8
Calcium	ppm	ASTM D5185m		**72**	29	21
Phosphorus	ppm	ASTM D5185m		**309**	35	32
Zinc	ppm	ASTM D5185m		**0**	24	20
Sulfur	ppm	ASTM D5185m		**1097**	346	452

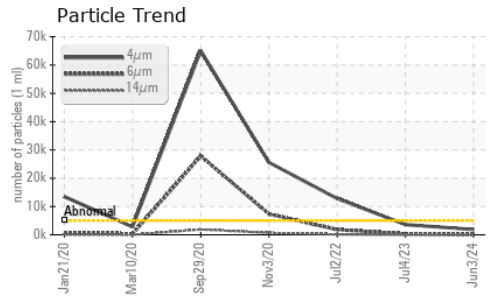
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**1**	<1	<1
Sodium	ppm	ASTM D5185m		**1**	0	1
Potassium	ppm	ASTM D5185m	>20	**3**	<1	0
Water	%	ASTM D6304	>0.05	**0.006**	0.003	0.005
ppm Water	ppm	ASTM D6304	>500	**67**	37.0	51.7

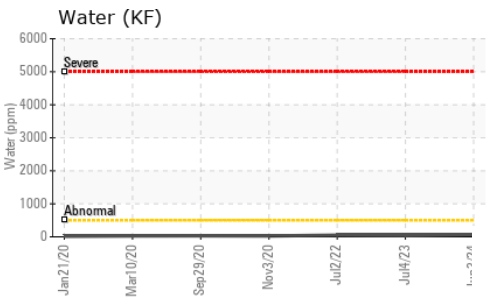
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	**1872**	3609	▲ 12799
Particles >6µm		ASTM D7647	>1300	**78**	321	● 1808
Particles >14µm		ASTM D7647	>160	**2**	16	136
Particles >21µm		ASTM D7647	>40	**0**	5	36
Particles >38µm		ASTM D7647	>10	**0**	0	3
Particles >71µm		ASTM D7647	>3	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	**18/13/9**	19/16/11	▲ 21/18/14

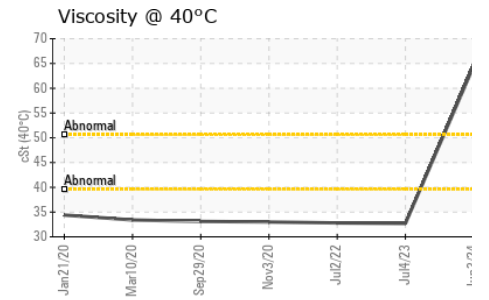
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.124**	0.048	0.072

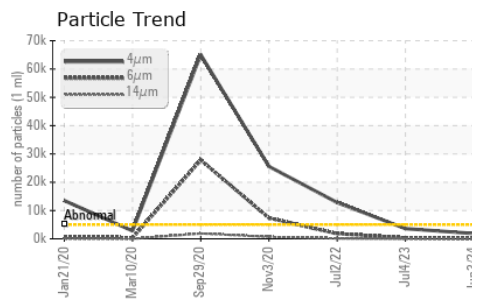
OIL ANALYSIS REPORT







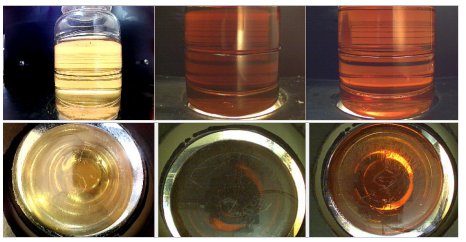




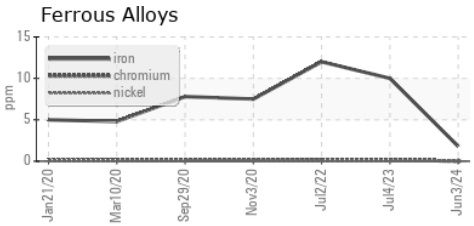
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

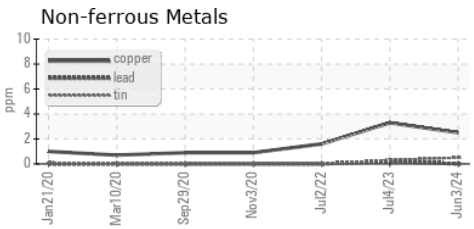
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		**64.5**	32.7	32.8

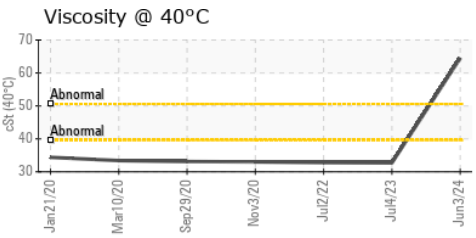
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

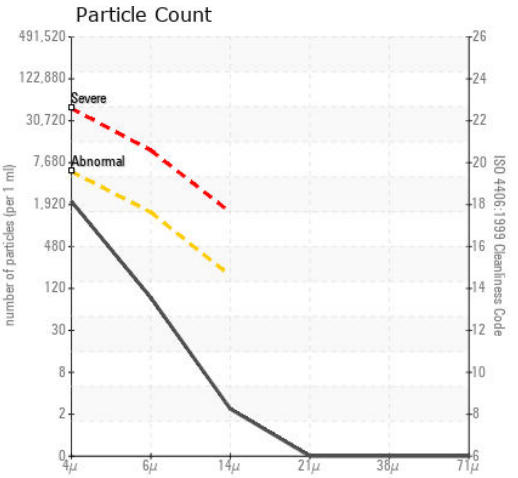


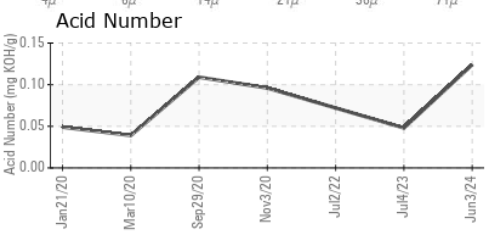
GRAPHS











Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0769485 **Received** : 14 Jun 2024
Lab Number : 06210144 **Tested** : 18 Jun 2024
Unique Number : 11083008 **Diagnosed** : 18 Jun 2024 - Sean Felton
Test Package : IND 2 (Additional Tests: KF)

Certificate L2367

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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Report Id: MARCAT [WUSCAR] 06210144 (Generated: 06/22/2024 04:12:53) Rev: 1

Submitted By: M/V GARYVILLE