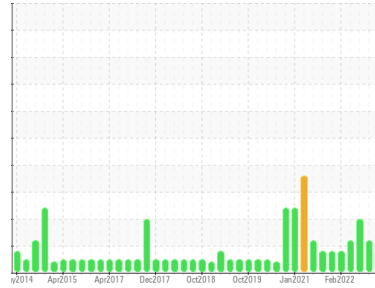


OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
NCRTS GRIZZLY H

Component
Hydraulic System

Fluid
AW HYDRAULIC OIL ISO 46 (--- GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a light amount of silt (particulates < 14 microns in size) present in the oil. The water content is negligible.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			Y2K0000869	Y2K0000849	Y2K0000840
Sample Date	Client Info			26 Sep 2023	26 Jul 2023	18 May 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed	Client Info			N/A	N/A	N/A
Sample Status				ATTENTION	ATTENTION	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	2	0	2
Chromium	ppm	ASTM D5185m	>20	3	5	3
Nickel	ppm	ASTM D5185m	>20	0	<1	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	<1	0
Aluminum	ppm	ASTM D5185m	>20	8	8	8
Lead	ppm	ASTM D5185m	>20	<1	<1	0
Copper	ppm	ASTM D5185m	>20	23	29	26
Tin	ppm	ASTM D5185m	>20	0	0	0
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	5	0	0	0
Barium	ppm	ASTM D5185m	5	0	0	0
Molybdenum	ppm	ASTM D5185m	5	0	0	<1
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m	25	<1	0	0
Calcium	ppm	ASTM D5185m	200	25	16	19
Phosphorus	ppm	ASTM D5185m	300	324	340	332
Zinc	ppm	ASTM D5185m	370	384	392	378
Sulfur	ppm	ASTM D5185m	2500	871	838	949

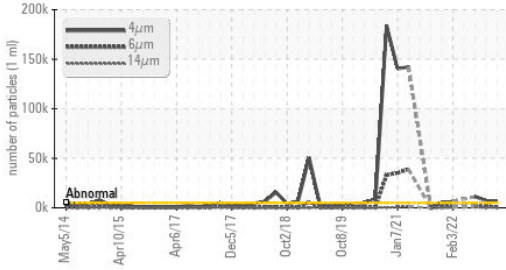
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	<1	<1	<1
Sodium	ppm	ASTM D5185m		0	<1	<1
Potassium	ppm	ASTM D5185m	>20	<1	0	0
Water	%	ASTM D6304	>0.05	0.003	0.010	0.006
ppm Water	ppm	ASTM D6304	>500	35.4	109.6	60.8

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	▲ 6012	▲ 7193	▲ 11381
Particles >6µm		ASTM D7647	>1300	854	▲ 1520	▲ 3637
Particles >14µm		ASTM D7647	>160	87	110	▲ 598
Particles >21µm		ASTM D7647	>40	35	28	▲ 183
Particles >38µm		ASTM D7647	>10	4	0	13
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 20/17/14	▲ 20/18/14	▲ 21/19/16

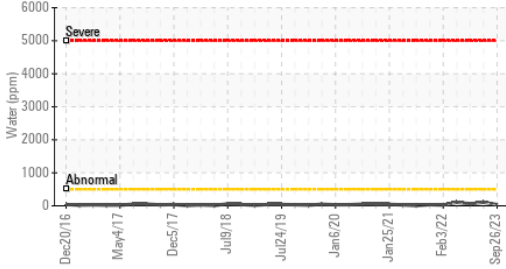
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	0.30	0.30	0.25

OIL ANALYSIS REPORT

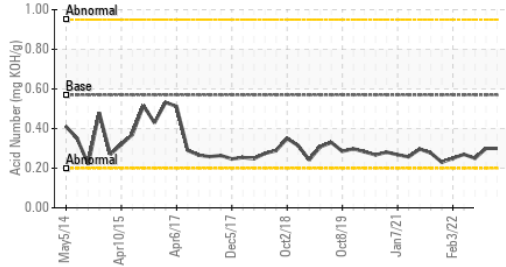
▲ Particle Trend



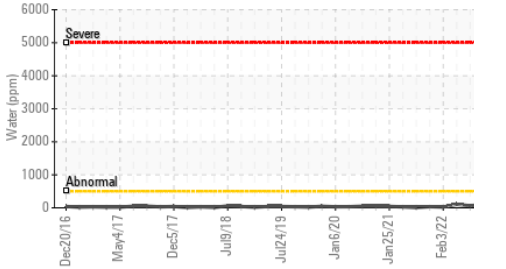
Water (KF)



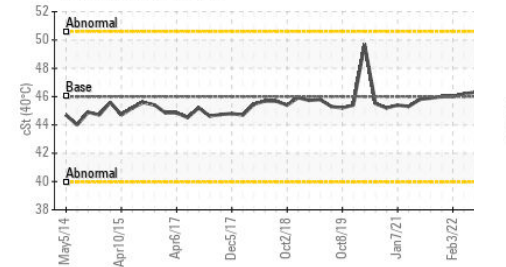
Acid Number



Water (KF)



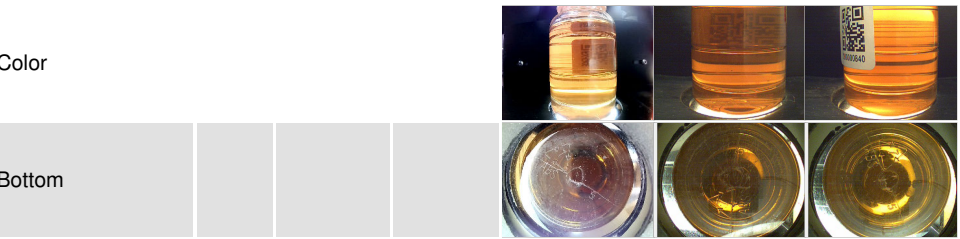
Viscosity @ 40°C



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
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	>0.05	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

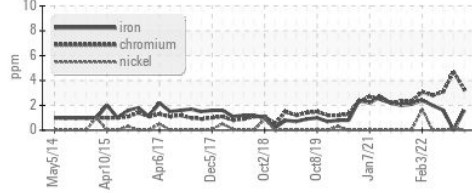
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 46	46.1	47.7	46.3

SAMPLE IMAGES	method	limit/base	current	history1	history2
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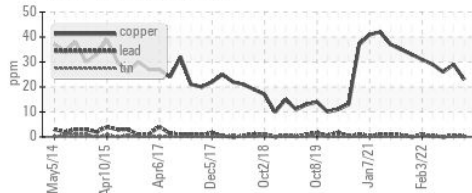


GRAPHS

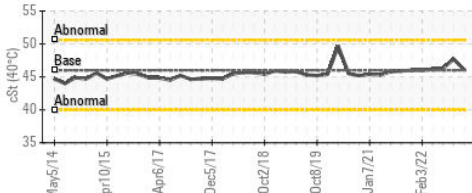
Ferrous Alloys



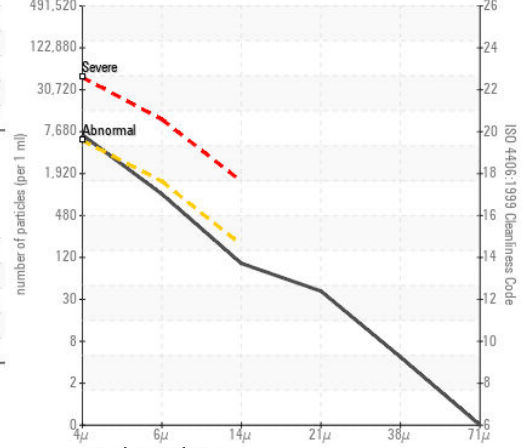
Non-ferrous Metals



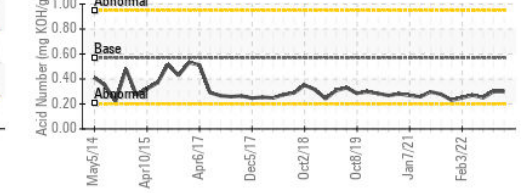
Viscosity @ 40°C



▲ Particle Count



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : Y2K0000869 **Received** : 02 Oct 2023
Lab Number : 05967018 **Diagnosed** : 03 Oct 2023
Unique Number : 10673569 **Diagnostician** : Wes Davis
Test Package : MOB 2 (Additional Tests: KF)

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 8915 CATHCART WAY
 SNOHOMISH, WA
 US 98296
 Contact: RAY SCHERRER
 Raymond.Scherrer@co.snohomish.wa.us
 T: (866)292-1303
 F:

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)