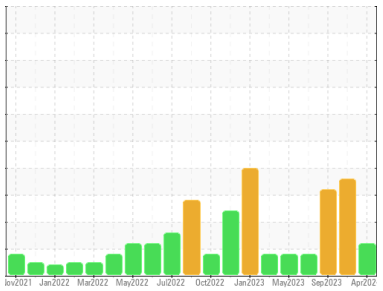
OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY

Machine Id
FRICK OLD
Component
Compressor
Fluid
SUMMIT NGP-150 (--- GAL)

DIAGNOSIS

Recommendation
No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Wear
All component wear rates are normal.

Contamination
Moderate concentration of visible dirt/debris present in the oil.

Fluid Condition
Viscosity of sample indicates oil is within ISO 100 range, advise investigate. Confirm oil type. The AN level is acceptable for this fluid.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**TO60002361**	TO60001068	TO60001085
Sample Date		Client Info		**04 Apr 2024**	02 Oct 2023	07 Sep 2023
Machine Age	hrs	Client Info		**33505**	29125	28510
Oil Age	hrs	Client Info		**19014**	19629	20300
Oil Changed		Client Info		**Oil Added**	N/A	N/A
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	**0**	<1	<1
Chromium	ppm	ASTM D5185m	>5	**0**	0	0
Nickel	ppm	ASTM D5185m		**0**	0	0
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>15	**0**	<1	0
Lead	ppm	ASTM D5185m	>65	**0**	0	0
Copper	ppm	ASTM D5185m	>65	**0**	0	0
Tin	ppm	ASTM D5185m	>10	**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		**0**	0	0
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**0**	0	0
Manganese	ppm	ASTM D5185m		**0**	<1	0
Magnesium	ppm	ASTM D5185m		**0**	0	<1
Calcium	ppm	ASTM D5185m		**0**	0	2
Phosphorus	ppm	ASTM D5185m		**52**	54	65
Zinc	ppm	ASTM D5185m		**0**	0	4
Sulfur	ppm	ASTM D5185m		**1666**	1627	2197

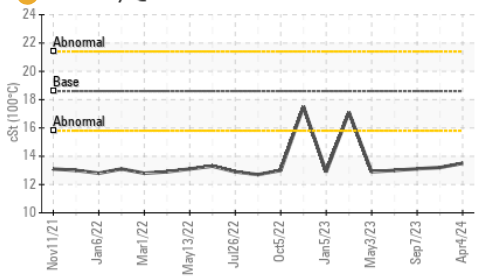
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>35	**18**	13	11
Sodium	ppm	ASTM D5185m		**0**	2	0
Potassium	ppm	ASTM D5185m	>20	**0**	3	2
Water	%	ASTM D6304	>0.1	**0.034**	▲ 0.194	0.083
ppm Water	ppm	ASTM D6304	>1000	**347**	▲ 1940	830

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	**---**	▲ 230639	▲ 30793
Particles >6µm		ASTM D7647	>2500	**---**	▲ 86333	▲ 6955
Particles >14µm		ASTM D7647	>320	**---**	75	188
Particles >21µm		ASTM D7647	>80	**---**	13	24
Particles >38µm		ASTM D7647	>20	**---**	1	1
Particles >71µm		ASTM D7647	>4	**---**	0	0
Oil Cleanliness		ISO 4406 (c)	>20/18/15	**---**	▲ 25/24/13	▲ 22/20/15

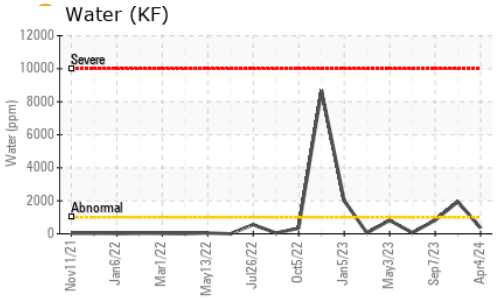
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.50**	0.521	0.60

OIL ANALYSIS REPORT

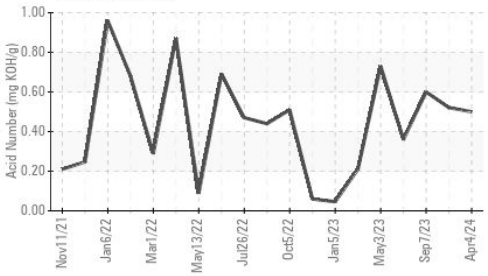
Viscosity @ 100°C



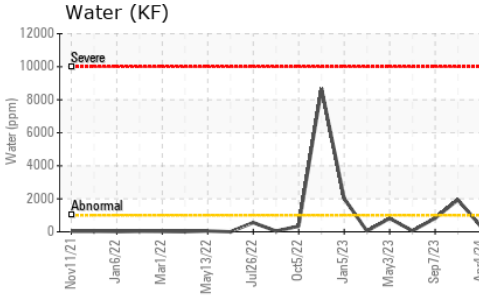
Water (KF)



Acid Number

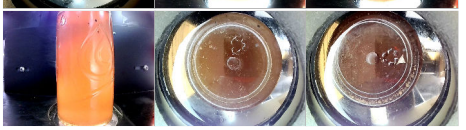


Water (KF)



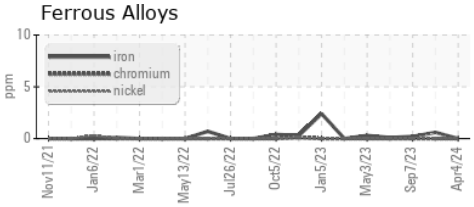
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	▲ MODER
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	▲ **MODER**	NONE	NONE
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	**NEG**	0.2%	0.2%
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	150	**109**	109	109
Visc @ 100°C	cSt	ASTM D445	18.6	**13.5**	13.2	13.11
Viscosity Index (VI)	Scale	ASTM D2270	140	**121**	117	115

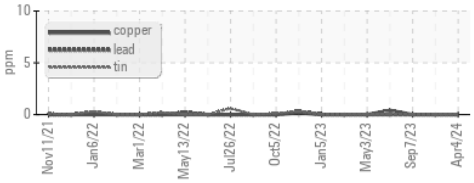
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

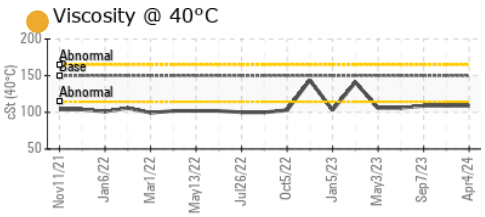
Ferrous Alloys



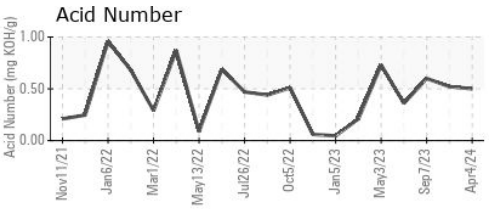
Non-ferrous Metals



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO60002361 **Received** : 16 Apr 2024
Lab Number : 06151239 **Tested** : 19 Apr 2024
Unique Number : 10981317 **Diagnosed** : 19 Apr 2024 - Don Baldridge
Test Package : IND 2 (Additional Tests: KF, KV100, PrtCount, VI)

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: BLUFRE [WUSCAR] 06151239 (Generated: 04/20/2024 08:46:32) Rev: 1

Submitted By: TECHNICIAN ACCOUNT