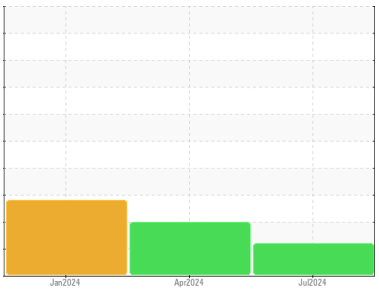
OIL ANALYSIS REPORT

Sample Rating Trend



ISO

Machine Id
TUNDISH TURNER
Component
Hydraulic System
Fluid
KOST ACHIEVAL FRH 46 (--- GAL)

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 moderate amount of particulates present in the oil.

Fluid Condition
The pH level of this fluid is within the acceptable limits at 9.0. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PCA0107875**	PCA0107868	PCA0107866
Sample Date		Client Info		**11 Jul 2024**	04 Apr 2024	19 Jan 2024
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	90
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	**0**	2	0
Chromium	ppm	ASTM D5185m	>20	**0**	1	0
Nickel	ppm	ASTM D5185m	>20	**<1**	1	<1
Titanium	ppm	ASTM D5185m		**0**	<1	0
Silver	ppm	ASTM D5185m		**0**	0	<1
Aluminum	ppm	ASTM D5185m	>20	**0**	11	<1
Lead	ppm	ASTM D5185m	>20	**0**	0	0
Copper	ppm	ASTM D5185m	>20	**0**	<1	0
Tin	ppm	ASTM D5185m	>20	**<1**	<1	<1
Vanadium	ppm	ASTM D5185m		**0**	2	0
Cadmium	ppm	ASTM D5185m		**0**	<1	1

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	1	0
Barium	ppm	ASTM D5185m		**0**	0	<1
Molybdenum	ppm	ASTM D5185m		**0**	<1	0
Manganese	ppm	ASTM D5185m		**0**	<1	<1
Magnesium	ppm	ASTM D5185m		**1**	<1	<1
Calcium	ppm	ASTM D5185m		**0**	3	2
Phosphorus	ppm	ASTM D5185m		**2**	9	3
Zinc	ppm	ASTM D5185m		**0**	5	8
Sulfur	ppm	ASTM D5185m		**1**	0	20

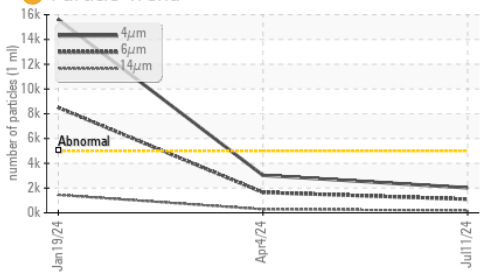
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**<1**	3	<1
Sodium	ppm	ASTM D5185m		**1**	37	0
Potassium	ppm	ASTM D5185m	>20	**<1**	6	<1
Water	%	ASTM D6304	>0.05	**41.2**	40.6	36.9
ppm Water	ppm	ASTM D6304	>500	**412000**	406000	369000

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	**2018**	3028	▲ 15607
Particles >6µm		ASTM D7647	>1300	**1099**	1649	▲ 8502
Particles >14µm		ASTM D7647	>160	**187**	281	▲ 1447
Particles >21µm		ASTM D7647	>40	**63**	95	▲ 487
Particles >38µm		ASTM D7647	>10	**10**	15	▲ 75
Particles >71µm		ASTM D7647	>3	**1**	1	▲ 8
Oil Cleanliness		ISO 4406 (c)	>19/17/14	**18/17/15**	19/18/15	▲ 21/20/18

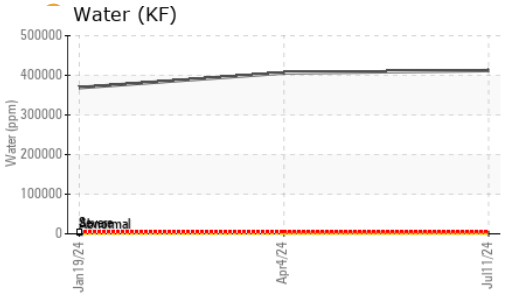
OIL ANALYSIS REPORT

OIL DIAGNOSTICS

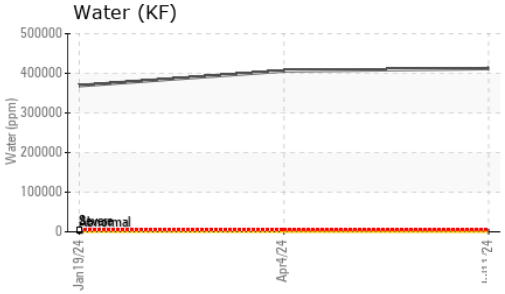
Particle Trend



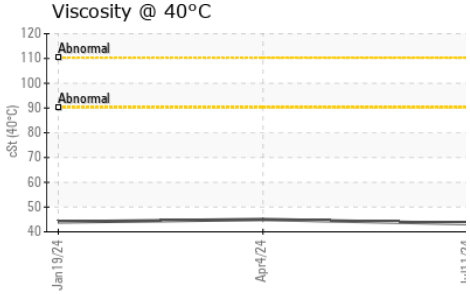
Water (KF)



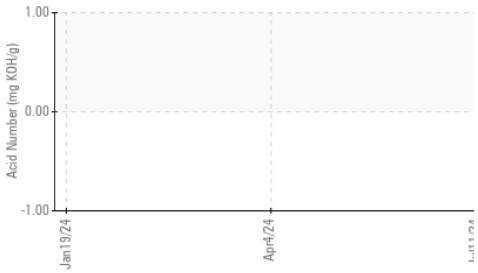
Water (KF)



Viscosity @ 40°C



Acid Number



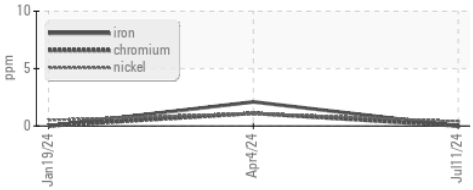
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	**0.2%**	0.2%	0.2%
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
pH	Scale 0-14	ASTM D1287		**9.00**	11.0	9.00
Visc @ 40°C	cSt	ASTM D445		**43.3**	45.0	44.0

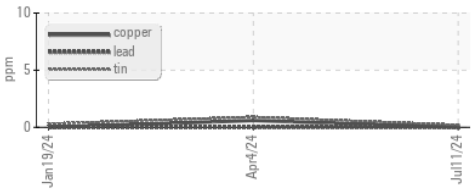
SAMPLE IMAGES			method	limit/base	current	history1	history2
Color							
Bottom							

GRAPHS

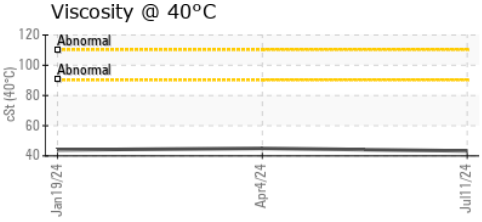
Ferrous Alloys



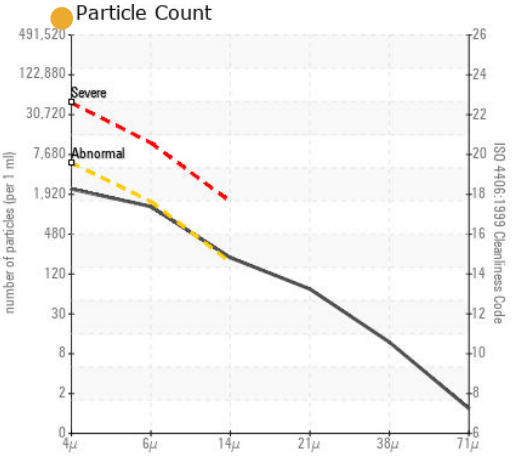
Non-ferrous Metals



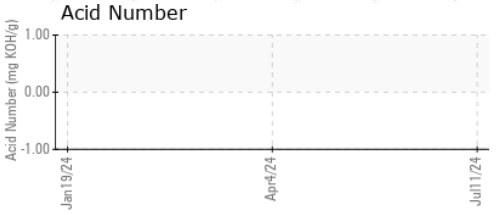
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0107875 **Received** : 17 Jul 2024
Lab Number : 06239202 **Tested** : 19 Jul 2024
Unique Number : 11128036 **Diagnosed** : 19 Jul 2024 - Jonathan Hester
Test Package : IND 2 (Additional Tests: KF, pH)

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: NUCBOUIL [WUSCAR] 06239202 (Generated: 07/21/2024 13:17:35) Rev: 1

Submitted By: JIM MACK