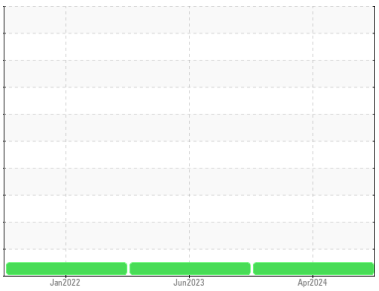
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
TORO 30881/4500-D 115626 (S/N A181121144)
Component
Hydrostatic
Fluid
TRC UTF RED (8 GAL)

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
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 suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**TR06159113**	TR05868629	TR05454810
Sample Date		Client Info		**23 Apr 2024**	05 Jun 2023	25 Jan 2022
Machine Age	hrs	Client Info		**2669**	2200	1640
Oil Age	hrs	Client Info		**1854**	1403	825
Oil Changed		Client Info		**Not Changd**	Not Changd	Not Changd
Sample Status				**NORMAL**	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.1	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	**33**	36	32
Chromium	ppm	ASTM D5185m	>10	**0**	<1	<1
Nickel	ppm	ASTM D5185m		**0**	<1	0
Titanium	ppm	ASTM D5185m		**0**	0	<1
Silver	ppm	ASTM D5185m		**<1**	0	<1
Aluminum	ppm	ASTM D5185m	>50	**4**	4	4
Lead	ppm	ASTM D5185m	>50	**9**	8	6
Copper	ppm	ASTM D5185m	>200	**14**	13	10
Tin	ppm	ASTM D5185m	>10	**0**	<1	<1
Antimony	ppm	ASTM D5185m		**---**	---	2
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

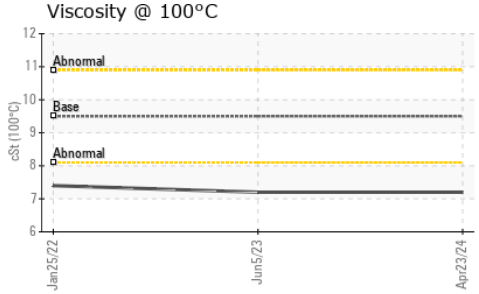
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**83**	91	102
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**0**	<1	1
Manganese	ppm	ASTM D5185m		**<1**	<1	<1
Magnesium	ppm	ASTM D5185m		**8**	8	15
Calcium	ppm	ASTM D5185m	4200	**2654**	2734	2995
Phosphorus	ppm	ASTM D5185m	1100	**1158**	1214	1363
Zinc	ppm	ASTM D5185m	2000	**1418**	1536	1639
Sulfur	ppm	ASTM D5185m		**6169**	6213	6486

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	**12**	13	15
Sodium	ppm	ASTM D5185m		**4**	2	3
Potassium	ppm	ASTM D5185m	>20	**0**	2	0

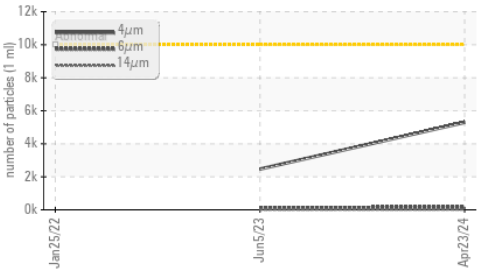
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	**5297**	2470	---
Particles >6µm		ASTM D7647	>2500	**162**	116	---
Particles >14µm		ASTM D7647	>320	**19**	13	---
Particles >21µm		ASTM D7647	>80	**5**	4	---
Particles >38µm		ASTM D7647	>20	**0**	0	---
Particles >71µm		ASTM D7647	>4	**0**	0	---
Oil Cleanliness		ISO 4406 (c)	>20/18/15	**20/15/11**	18/14/11	---

OIL ANALYSIS REPORT

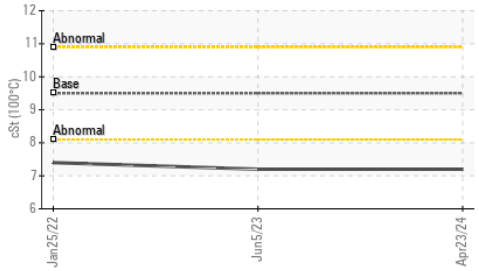
Viscosity @ 100°C



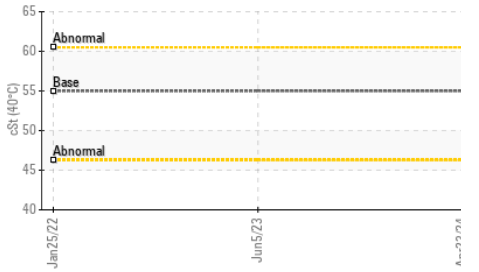
Particle Trend



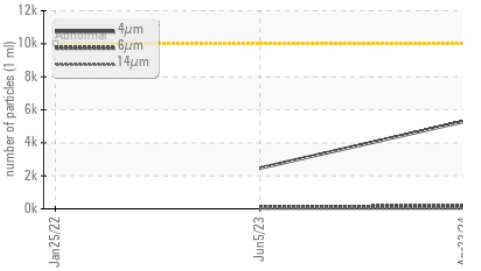
Viscosity @ 100°C



Viscosity @ 40°C



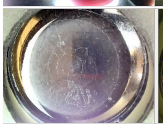
Particle Trend



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**1.93**	1.12	1.02

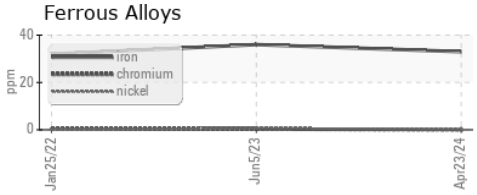
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	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	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	55	**44.3**	---	---
Visc @ 100°C	cSt	ASTM D445	9.5	**7.2**	7.2	7.4
Viscosity Index (VI)	Scale	ASTM D2270	157	**123**	---	---

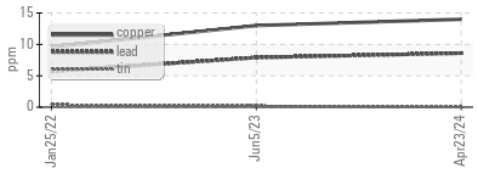
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					*no image*
Bottom					*no image*

GRAPHS

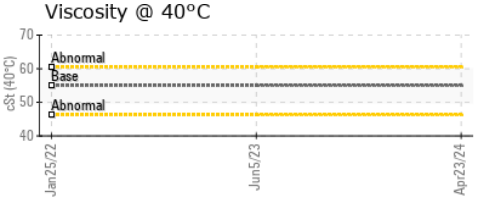
Ferrous Alloys



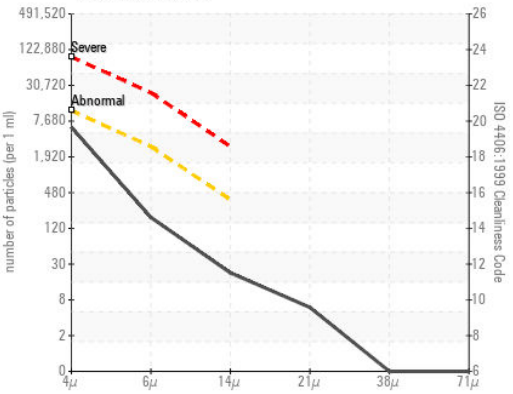
Non-ferrous Metals



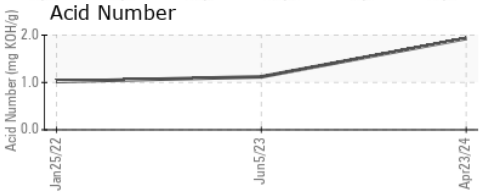
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06159113
Lab Number : 06159113
Unique Number : 10994536
Test Package : MOB 2 (Additional Tests: KV100, PrtCount, VI)

Received : 24 Apr 2024
Tested : 25 Apr 2024
Diagnosed : 26 Apr 2024 - Jonathan Hester

OVERLAND PARK GC CCD
1801 S HURON ST
DENVER, CO
US 80223
Contact: JAMES WEST

To discuss this sample report, contact Customer Service at 1-800-827-0711.
** - 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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