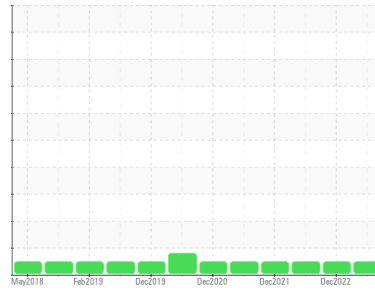




# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id  
**FRICK S-3 (S/N 10241A84785711)**  
 Component  
**Refrigeration Compressor**  
 Fluid  
**FRICK COMPRESSOR OIL #3 (--- GAL)**

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

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

#### 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			<b>USP240863</b>	USP240858	USP230300
Sample Date	Client Info			<b>15 Jun 2023</b>	15 Dec 2022	17 Jun 2022
Machine Age	hrs	Client Info		<b>6940</b>	6939	6525
Oil Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed	Client Info			<b>Not Changed</b>	Not Changed	Not Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>8	<b>1</b>	0	<1
Chromium	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m		<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Lead	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>8	<b>0</b>	0	0
Tin	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Antimony	ppm	ASTM D5185m		<b>---</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>0</b>	0	<1
Barium	ppm	ASTM D5185m		<b>4</b>	3	3
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m		<b>0</b>	0	0
Calcium	ppm	ASTM D5185m		<b>0</b>	0	0
Phosphorus	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Zinc	ppm	ASTM D5185m		<b>0</b>	0	0
Sulfur	ppm	ASTM D5185m		<b>58</b>	43	42

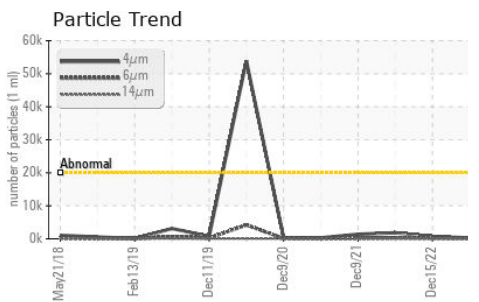
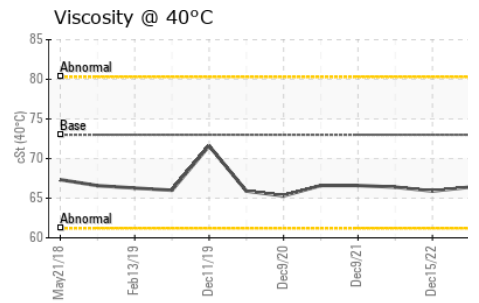
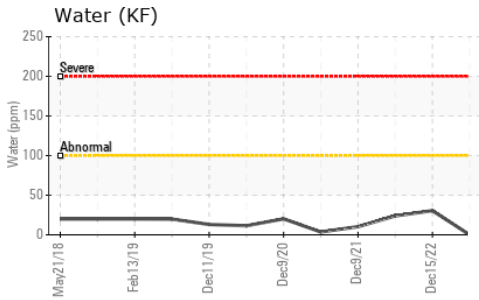
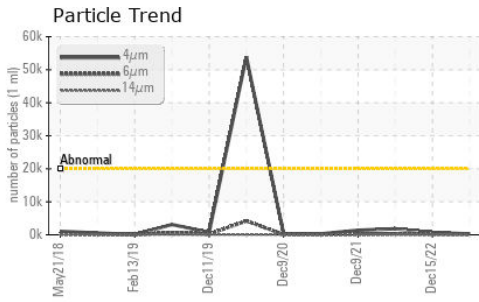
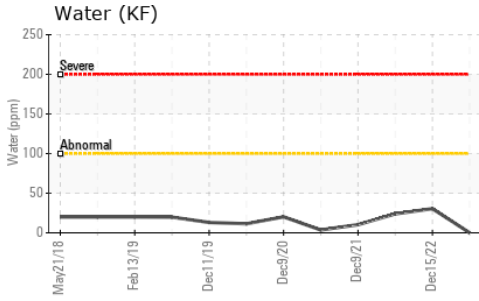
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	<b>0</b>	<1	<1
Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	0	1
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Water	%	ASTM D6304	>0.01	<b>0.00</b>	0.003	0.002
ppm Water	ppm	ASTM D6304	>100	<b>0.00</b>	30.5	23.9

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	<b>290</b>	708	1836
Particles >6µm		ASTM D7647	>2500	<b>71</b>	174	342
Particles >14µm		ASTM D7647	>320	<b>9</b>	8	20
Particles >21µm		ASTM D7647	>80	<b>2</b>	1	4
Particles >38µm		ASTM D7647	>20	<b>0</b>	0	0
Particles >71µm		ASTM D7647	>4	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>21/18/15	<b>15/13/10</b>	17/15/10	18/16/11

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974		<b>0.015</b>	0.015	0.014



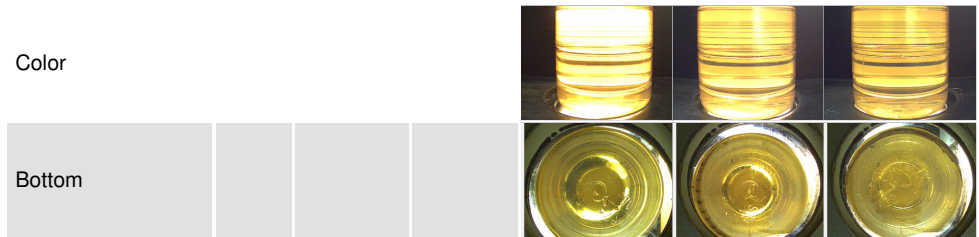
# OIL ANALYSIS REPORT



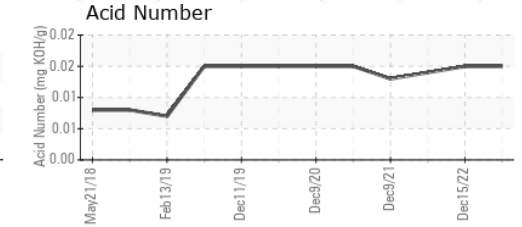
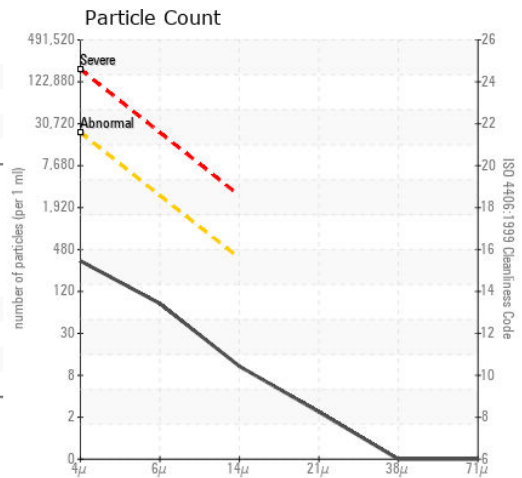
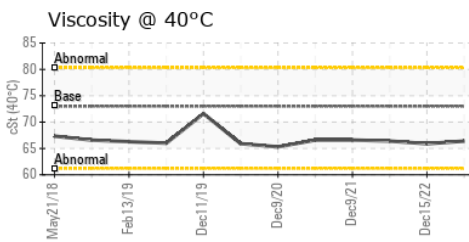
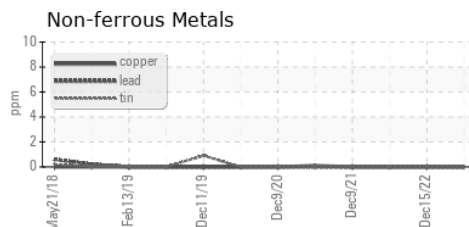
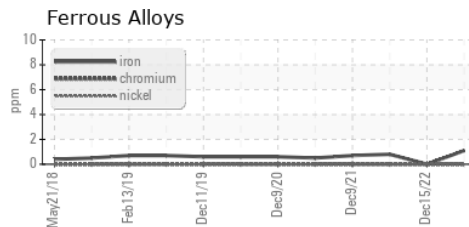
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.01	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 73	66.4	65.9	66.4

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : USP240863  
**Lab Number** : 05878890  
**Unique Number** : 10523993  
**Test Package** : IND 2

**Received** : 20 Jun 2023  
**Tested** : 21 Jun 2023  
**Diagnosed** : 21 Jun 2023 - Doug Bogart

**LINEAGE LOGISTICS**  
 19450 NE SAN RAFAEL ST  
 PORTLAND, OR  
 US 97230  
 Contact: DANIEL VALDIVIA MENDOZA  
 dvaldivia@onelineage.com  
 T: (503)926-5499  
 F: (503)252-5257

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)