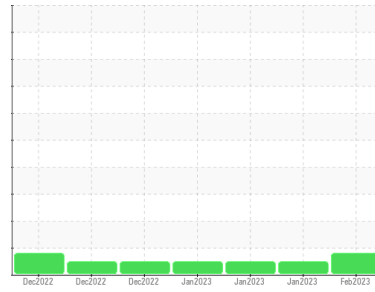




# OIL ANALYSIS REPORT

## Sample Rating Trend



ISO



Machine Id  
**FP-12 POWER END**  
 Component  
**Pump**  
 Fluid  
**GEAR OIL LS 80W90 (--- 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 silt (particulates < 14 microns in size) present in the oil.

#### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>KL0009709</b>	KL0009711	KL0009704
Sample Date	Client Info			<b>04 Feb 2023</b>	26 Jan 2023	17 Jan 2023
Machine Age	hrs	Client Info		<b>21213</b>	21126	20962
Oil Age	hrs	Client Info		<b>1385</b>	0	1143
Oil Changed	Client Info			<b>Not Chngd</b>	N/A	Not Chngd
Sample Status				<b>ATTENTION</b>	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method			<b>NEG</b>	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>500	<b>12</b>	13	11
Chromium	ppm	ASTM D5185m	>7	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m		<b>3</b>	4	1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>&lt;1</b>	0	0
Lead	ppm	ASTM D5185m	>35	<b>4</b>	5	4
Copper	ppm	ASTM D5185m	>50	<b>13</b>	15	10
Tin	ppm	ASTM D5185m	>5	<b>3</b>	3	2
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	150	<b>8</b>	9	10
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m	10	<b>67</b>	73	67
Calcium	ppm	ASTM D5185m	70	<b>283</b>	301	298
Phosphorus	ppm	ASTM D5185m	2000	<b>296</b>	292	266
Zinc	ppm	ASTM D5185m	50	<b>137</b>	149	151
Sulfur	ppm	ASTM D5185m	20000	<b>10659</b>	10407	8442

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	<b>1</b>	2	1
Sodium	ppm	ASTM D5185m		<b>20</b>	22	20
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	1

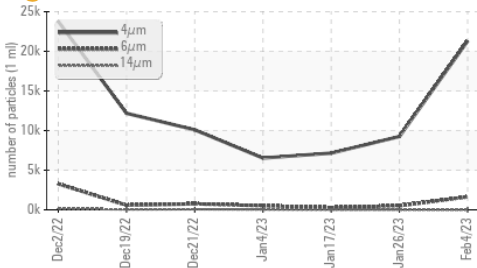
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		<b>21300</b>	9251	7156
Particles >6µm		ASTM D7647	>1300	<b>1642</b>	513	279
Particles >14µm		ASTM D7647	>160	<b>11</b>	22	15
Particles >21µm		ASTM D7647	>40	<b>4</b>	8	3
Particles >38µm		ASTM D7647	>10	<b>0</b>	0	0
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>17/14	<b>18/11</b>	16/12	15/11

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.31</b>	0.07	0.26

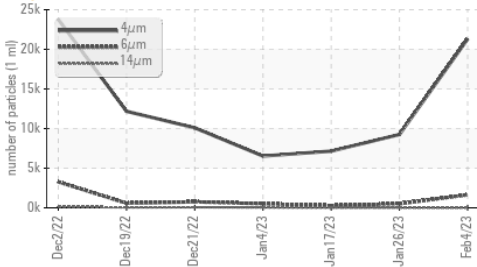


# OIL ANALYSIS REPORT

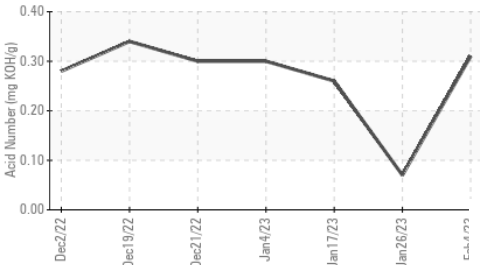
● Particle Trend



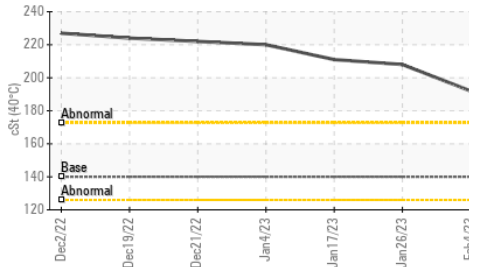
● Particle Trend



Acid Number



Viscosity @ 40°C

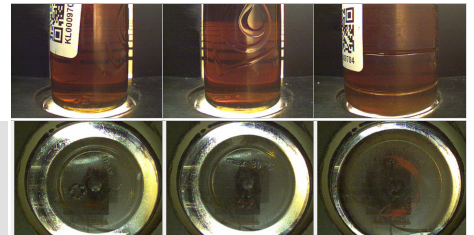


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 140	192	208	211

SAMPLE IMAGES	method	limit/base	current	history1	history2
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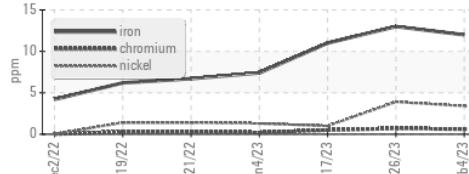
Color



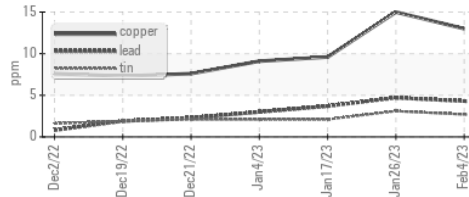
Bottom

## GRAPHS

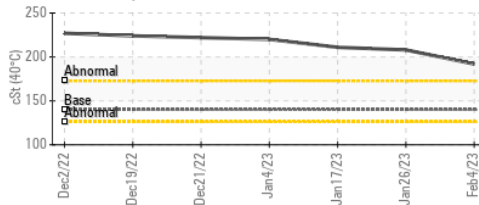
Ferrous Alloys



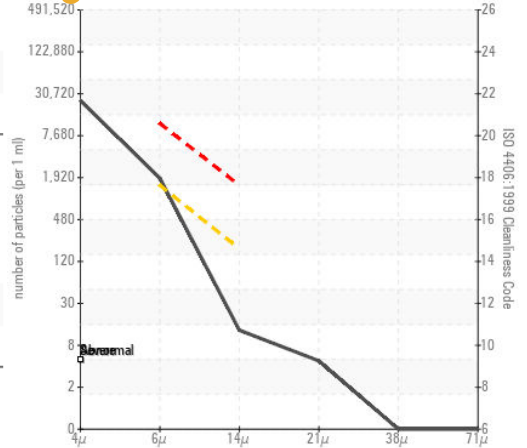
Non-ferrous Metals



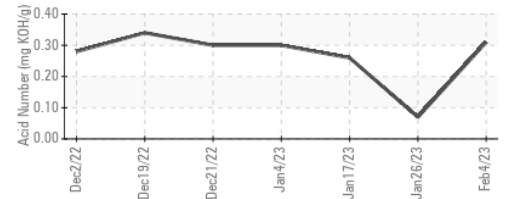
Viscosity @ 40°C



● Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : KL0009709 Received : 07 Feb 2023  
 Lab Number : 05760563 Tested : 08 Feb 2023  
 Unique Number : 10325170 Diagnosed : 08 Feb 2023 - Don Baldrige  
 Test Package : MOB 2 ( Additional Tests: PrtCount )

PUREFRAC LLC  
 13216 TX-191  
 MIDLAND, TX  
 US 79707  
 Contact: Service Manager

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)

T:  
F: