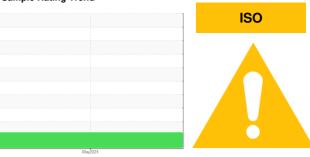


# **OIL ANALYSIS REPORT**

Sample Rating Trend



Machine Id

# **6974 - POWER-END**

Gearbox

GEAR OIL (PAO) ISO 220 (--- GAL)

### **DIAGNOSIS**

### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor. Please note that this is a corrected copy for data entry updates to target ISO.

All component wear rates are normal.

### Contamination

There is a high 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.

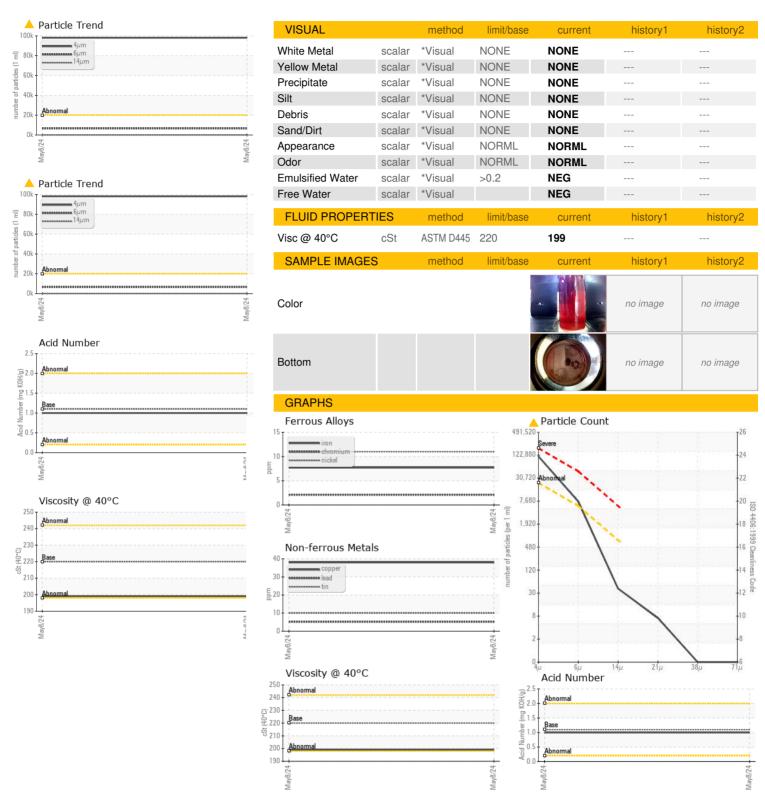
						\
			ħ	May2024		
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
	ATION		IIIIII/Dase		HISTORY	HISTOLAS
Sample Number		Client Info		KL0014291		
Sample Date		Client Info		08 May 2024		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				ABNORMAL		
CONTAMINATION	١	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	8		
Chromium	ppm	ASTM D5185m	>10	2		
Nickel	ppm	ASTM D5185m	>10	11		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m		<1		
Aluminum	ppm	ASTM D5185m	>25	<1		
Lead	ppm	ASTM D5185m	>50	5		
Copper	ppm		>200	38		
Tin	ppm	ASTM D5185m	>10	10		
Vanadium	ppm	ASTM D5185m		<1		
Cadmium	ppm	ASTM D5185m		0		
	PPIII			ŭ		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	method ASTM D5185m	limit/base 25	current 14	history1	history2
	ppm ppm					
Boron	• •	ASTM D5185m	25	14		
Boron Barium	ppm	ASTM D5185m ASTM D5185m	25 12	14 <1		
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	25 12	14 <1 0		
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	25 12 5	14 <1 0		
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	25 12 5 25	14 <1 0 0 4		
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	25 12 5 25 25	14 <1 0 0 4 19		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	25 12 5 25 25 275	14 <1 0 0 4 19 342		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	25 12 5 25 25 375 25	14 <1 0 0 4 19 342 28		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	25 12 5 25 25 375 25 4900 limit/base	14 <1 0 0 4 19 342 28 5992		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	25 12 5 25 25 375 25 4900 limit/base	14 <1 0 0 4 19 342 28 5992 current		history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	25 12 5 25 25 375 25 4900 limit/base >50	14 <1 0 0 4 19 342 28 5992 current	     history1	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	25 12 5 25 25 375 25 4900 limit/base >50	14 <1 0 0 4 19 342 28 5992 current 2 4	    history1	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	25 12 5 25 25 375 25 4900 limit/base >50	14 <1 0 0 4 19 342 28 5992 current 2 4	history1	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	25 12 5 25 25 375 25 4900 limit/base >50 >20	14 <1 0 0 4 19 342 28 5992 current 2 4 4	history1 history1	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  method ASTM D5185m	25 12 5 25 25 375 25 4900 limit/base >50 limit/base >20000	14 <1 0 0 4 19 342 28 5992 current 2 4 4 current  98104	history1 history1	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  method ASTM D5185m	25 12 5 25 25 375 25 4900 limit/base >50  limit/base >20000 >5000	14 <1 0 0 4 19 342 28 5992 current 2 4 4  current  98104 6552	history1 history1	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  method ASTM D5185m ASTM D7647 ASTM D7647	25 12 5 25 25 375 25 4900 limit/base >50 >20 limit/base >20000 >5000 >640	14 <1 0 0 4 19 342 28 5992 current 2 4 4  current  98104 6552 35	history1 history1	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur  CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  method ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647	25 12 5 25 25 375 25 4900 limit/base >50 >20 limit/base >20000 >5000 >640 >160	14 <1 0 0 4 19 342 28 5992 current 2 4 4  current  98104 6552 35 6	history1 history1	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  Method  ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	25 12 5 25 25 375 25 4900 limit/base >50 >20 limit/base >20000 >5000 >640 >160 >40	14 <1 0 0 4 19 342 28 5992 current 2 4 4  current  98104 6552 35 6 0	history1 history1	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur  CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >5µm Particles >21µm Particles >38µm Particles >71µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  Method ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	25 12 5 25 25 375 25 4900 limit/base >50 >20 limit/base >160 >160 >40 >10	14 <1 0 0 4 19 342 28 5992 current 2 4 4  current  98104 6552 35 6 0 0	history1 history1	history2 history2

Acid Number (AN)

mg KOH/g ASTM D8045 1.10



## **OIL ANALYSIS REPORT**





Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : KL0014291 Lab Number : 06181304

Unique Number : 11032630

Received Tested Diagnosed

: 17 May 2024

: 21 May 2024 - Jonathan Hester

: 16 May 2024

US 79706 Contact: TREVOR FRENETTE

**IRON CLAD ENERGY** 

MIDLAND, TX

9015 W COUNTY RD 127

Test Package : MOB 2 ( Additional Tests: PrtCount ) Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369.

 $^st$  - 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)

Report Id: IROMID [WUSCAR] 06181304 (Generated: 06/03/2024 15:58:10) Rev: 2

Contact/Location: TREVOR FRENETTE - IROMID

T:

F: