



OIL ANALYSIS REPORT

WEAR  
CONTAMINATION  
FLUID CONDITION

ATTENTION  
ABNORMAL  
NORMAL

Area  
**Co-Gen - Utilities**  
Machine Id  
**45-1130 - MAIN GEAR/PINION - PRIMARY CLARIFIER**  
Component  
**Bull Gear**  
Fluid  
**SHELL OMALA S4 GXV 320 (--- GAL)**

**RECOMMENDATION**

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>PE0004554</b>	PE0001549	---
Sample Date		Client Info		<b>11 Jun 2024</b>	25 Mar 2024	---
Machine Age	hrs	Client Info		<b>0</b>	0	---
Oil Age	hrs	Client Info		<b>0</b>	0	---
Filter Age	hrs	Client Info		<b>0</b>	0	---
Oil Changed		Client Info		<b>N/A</b>	N/A	---
Filter Changed		Client Info		<b>N/A</b>	N/A	---
Sample Status				<b>ABNORMAL</b>	ABNORMAL	---

**WEAR**

An increase in the iron level is noted.

PQ		ASTM D8184		<b>22</b>	14	---
Iron	ppm	ASTM D5185m	>150	<b>119</b>	49	---
Chromium	ppm	ASTM D5185m	>10	<b>2</b>	<1	---
Nickel	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	---
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
Silver	ppm	ASTM D5185m		<b>0</b>	<1	---
Aluminum	ppm	ASTM D5185m	>25	<b>2</b>	2	---
Lead	ppm	ASTM D5185m	>100	<b>&lt;1</b>	1	---
Copper	ppm	ASTM D5185m	>50	<b>&lt;1</b>	<1	---
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

**CONTAMINATION**

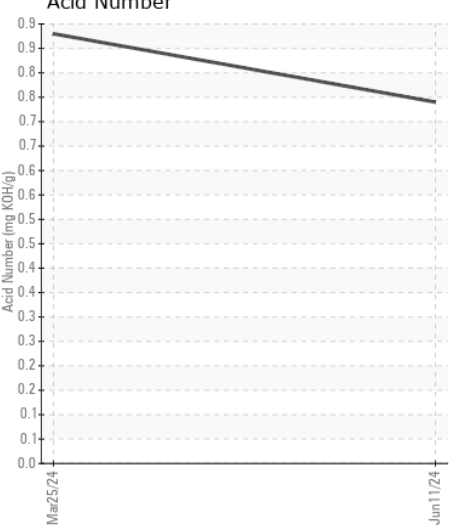
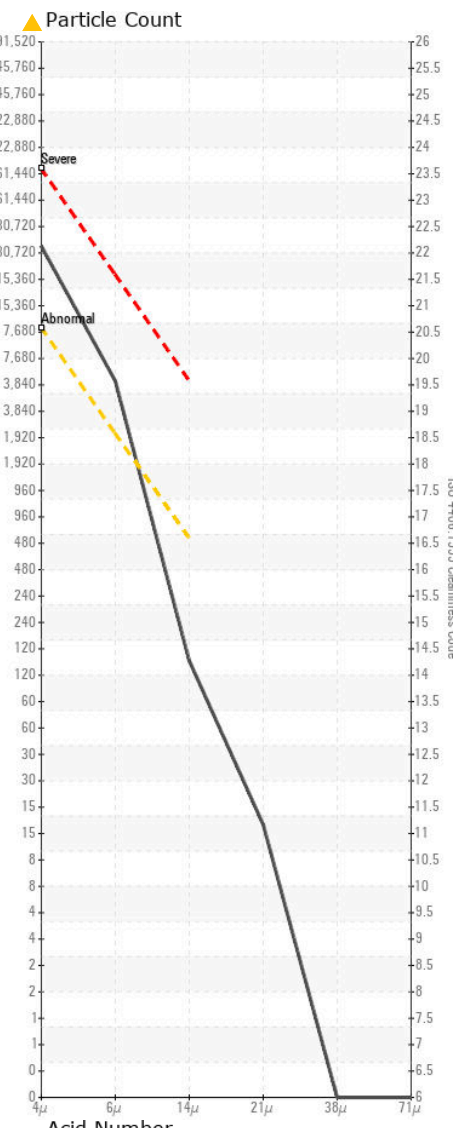
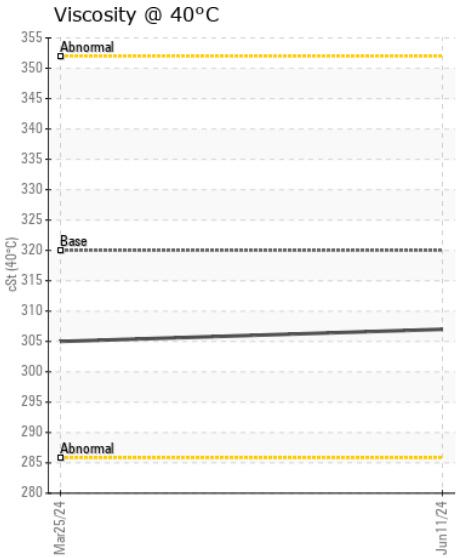
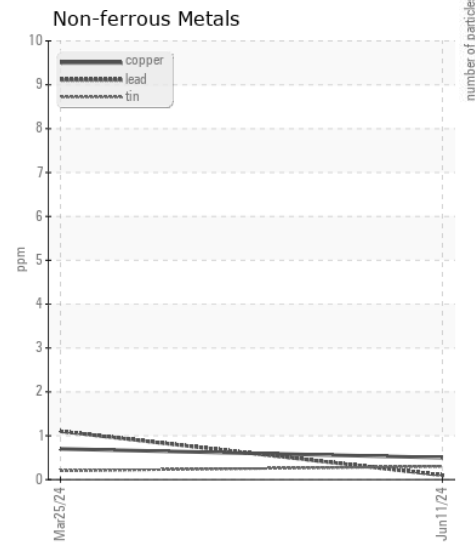
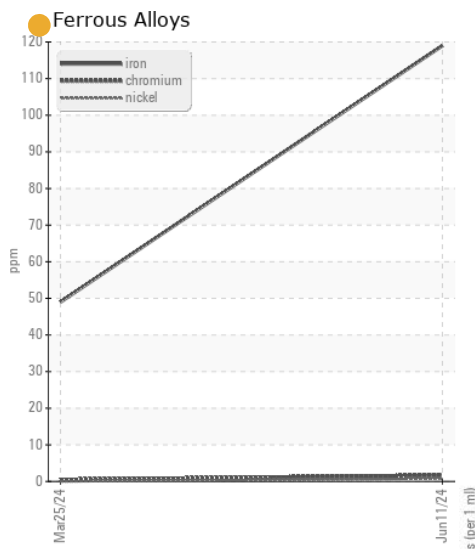
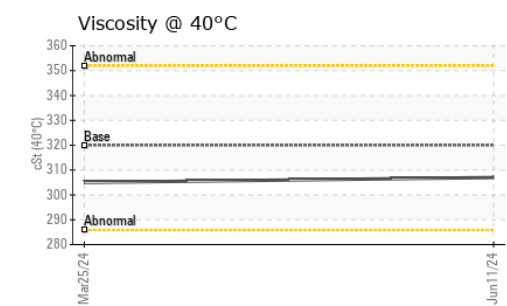
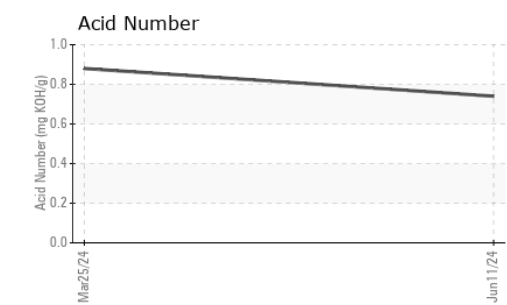
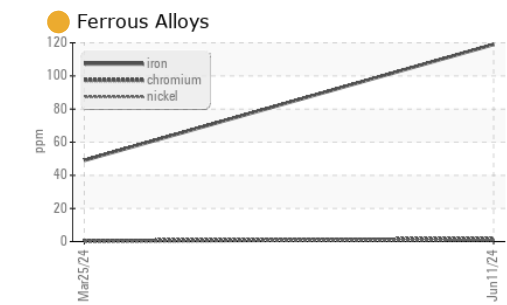
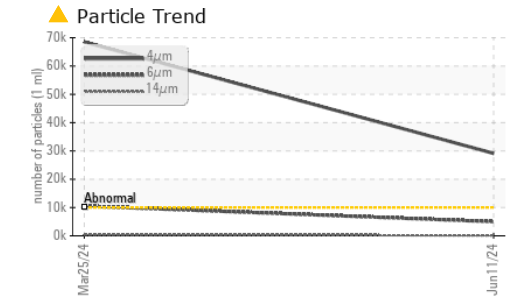
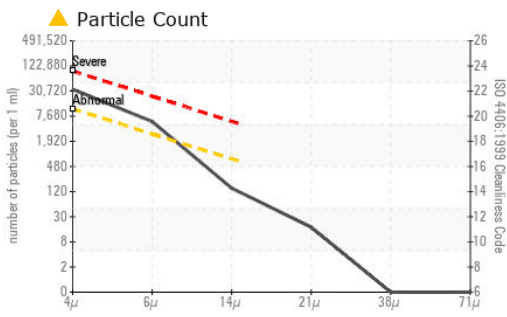
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>50	<b>17</b>	19	---
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	1	---
Water		WC Method	>0.1	<b>NEG</b>	NEG	---
Particles >4µm		ASTM D7647	>10000	<b>29122</b>	68516	---
Particles >6µm		ASTM D7647	>2500	<b>4984</b>	10511	---
Particles >14µm		ASTM D7647	>640	<b>128</b>	408	---
Particles >21µm		ASTM D7647	>160	<b>15</b>	77	---
Particles >38µm		ASTM D7647	>40	<b>0</b>	2	---
Particles >71µm		ASTM D7647	>10	<b>0</b>	0	---
Oil Cleanliness		ISO 4406 (c)	>20/18/16	<b>22/19/14</b>	23/21/16	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	MODER	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	0.2%	---

**FLUID CONDITION**

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>2</b>	<1	---
Boron	ppm	ASTM D5185m		<b>10</b>	6	---
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
Molybdenum	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
Manganese	ppm	ASTM D5185m		<b>1</b>	<1	---
Magnesium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
Calcium	ppm	ASTM D5185m		<b>0</b>	9	---
Phosphorus	ppm	ASTM D5185m		<b>460</b>	462	---
Zinc	ppm	ASTM D5185m		<b>3</b>	3	---
Sulfur	ppm	ASTM D5185m		<b>3552</b>	3054	---
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.74</b>	0.88	---
Visc @ 40°C	cSt	ASTM D445	320	<b>307</b>	305	---



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PE0004554 **Received** : 17 Jun 2024  
**Lab Number** : 06211479 **Tested** : 18 Jun 2024  
**Unique Number** : 11084343 **Diagnosed** : 18 Jun 2024 - Angela Borella  
**Test Package** : PLANT ( Additional Tests: ICP, KV40, PQ, PrtCount, SCREEN )

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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)