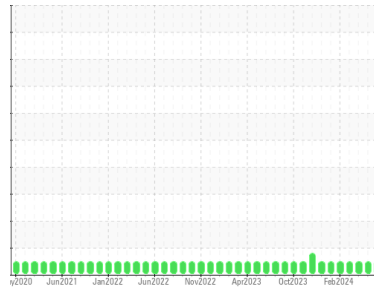




# OIL ANALYSIS REPORT

Area  
**OIL**  
 Machine Id  
**GN-4020C (S/N SOLAR C)**  
 Component  
**Turbine**  
 Fluid  
**CASTROL PERFECTO XPG 32 (1000 GAL)**

Sample Rating Trend



## 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		<b>HLC0003299</b>	HLC0003275	HLC0003191
Sample Date	Client Info		<b>28 May 2024</b>	01 May 2024	30 Mar 2024
Machine Age	hrs	Client Info	<b>0</b>	0	0
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.03	<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >15	<b>0</b>	0	1
Chromium	ppm	ASTM D5185m >4	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185m >2	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m >10	<b>0</b>	0	1
Lead	ppm	ASTM D5185m	<b>0</b>	<1	2
Copper	ppm	ASTM D5185m >5	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m >5	<b>0</b>	0	1
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	<1
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	<1

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>&lt;1</b>	0	0
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 0	<b>0</b>	0	<1
Manganese	ppm	ASTM D5185m 0	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m 0	<b>0</b>	0	<1
Calcium	ppm	ASTM D5185m 0	<b>&lt;1</b>	0	6
Phosphorus	ppm	ASTM D5185m 25	<b>7</b>	0	12
Zinc	ppm	ASTM D5185m 0	<b>1</b>	0	2
Sulfur	ppm	ASTM D5185m 1500	<b>316</b>	296	279

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<b>1</b>	1	<1
Sodium	ppm	ASTM D5185m	<b>23</b>	24	21
Potassium	ppm	ASTM D5185m >20	<b>0</b>	<1	1

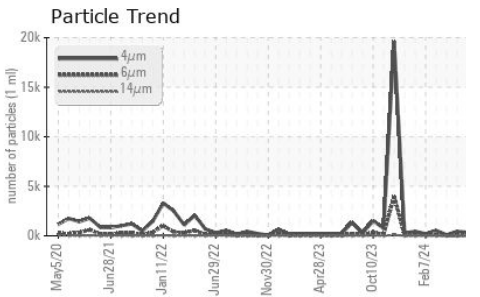
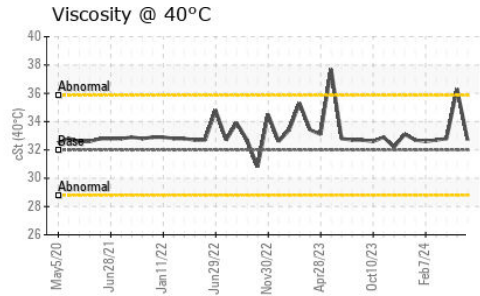
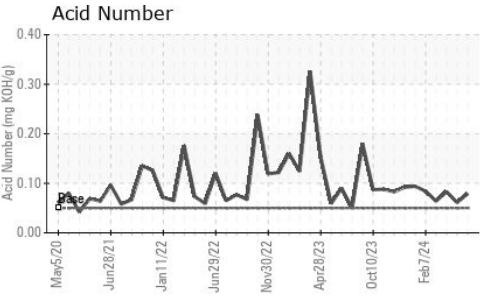
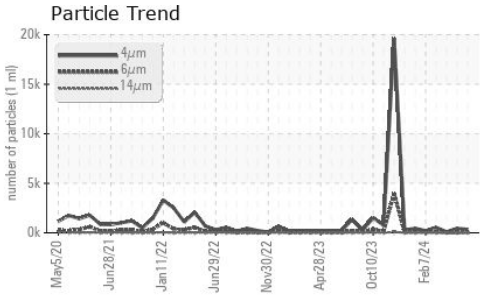
## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		<b>350</b>	452	95
Particles >6µm	ASTM D7647	>1300	<b>50</b>	32	18
Particles >14µm	ASTM D7647	>160	<b>5</b>	3	3
Particles >21µm	ASTM D7647	>40	<b>1</b>	2	1
Particles >38µm	ASTM D7647	>10	<b>0</b>	2	0
Particles >71µm	ASTM D7647	>3	<b>0</b>	2	0
Oil Cleanliness	ISO 4406 (c)	>--/17/14	<b>16/13/10</b>	16/12/9	14/11/9

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.05	<b>0.079</b>	0.061	0.083

# 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	>0.03	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D445	32.0	<b>32.7</b>	36.3	32.8

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : HLC0003299      **Received** : 10 Jun 2024  
**Lab Number** : 06205339      **Tested** : 12 Jun 2024  
**Unique Number** : 11072800      **Diagnosed** : 12 Jun 2024 - Don Baldrige  
**Test Package** : IND 2

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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)