



# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**HYDROVANS GS5 COMP #2**

Component  
**Screw Compressor**  
Fluid  
**CS 300 (3 LTR)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal. The ferrography results are normal indicating no abnormal wear in the system.

### Contaminants

The water content is negligible. There is no indication of any contamination in the oil.

### Oil 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>WC0815883</b>	---	---
Sample Date	Client Info		<b>20 Dec 2023</b>	---	---
Machine Age	hrs	Client Info	<b>0</b>	---	---
Oil Age	hrs	Client Info	<b>2000</b>	---	---
Oil Changed	Client Info		<b>Changed</b>	---	---
Sample Status			<b>NORMAL</b>	---	---

## WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184*		<b>0</b>	---	---
Iron	ppm	ASTM D5185(m) >60	<b>0</b>	---	---
Chromium	ppm	ASTM D5185(m) >4	<b>0</b>	---	---
Nickel	ppm	ASTM D5185(m)	<b>&lt;1</b>	---	---
Titanium	ppm	ASTM D5185(m)	<b>0</b>	---	---
Silver	ppm	ASTM D5185(m)	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185(m) >5	<b>&lt;1</b>	---	---
Lead	ppm	ASTM D5185(m) >10	<b>0</b>	---	---
Copper	ppm	ASTM D5185(m) >30	<b>&lt;1</b>	---	---
Tin	ppm	ASTM D5185(m) >15	<b>0</b>	---	---
Antimony	ppm	ASTM D5185(m)	<b>0</b>	---	---
Vanadium	ppm	ASTM D5185(m)	<b>0</b>	---	---
Beryllium	ppm	ASTM D5185(m)	<b>0</b>	---	---
Cadmium	ppm	ASTM D5185(m)	<b>0</b>	---	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	<b>0</b>	---	---
Barium	ppm	ASTM D5185(m)	<b>2</b>	---	---
Molybdenum	ppm	ASTM D5185(m)	<b>0</b>	---	---
Manganese	ppm	ASTM D5185(m)	<b>0</b>	---	---
Magnesium	ppm	ASTM D5185(m)	<b>&lt;1</b>	---	---
Calcium	ppm	ASTM D5185(m)	<b>&lt;1</b>	---	---
Phosphorus	ppm	ASTM D5185(m)	<b>&lt;1</b>	---	---
Zinc	ppm	ASTM D5185(m)	<b>7</b>	---	---
Sulfur	ppm	ASTM D5185(m)	<b>26</b>	---	---
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	---	---

## CONTAMINANTS

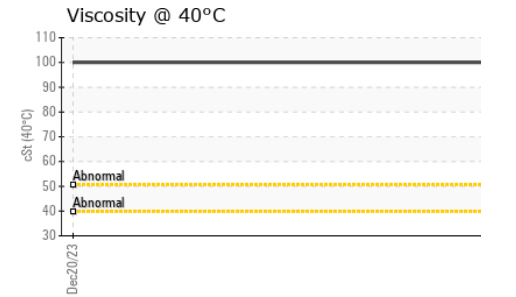
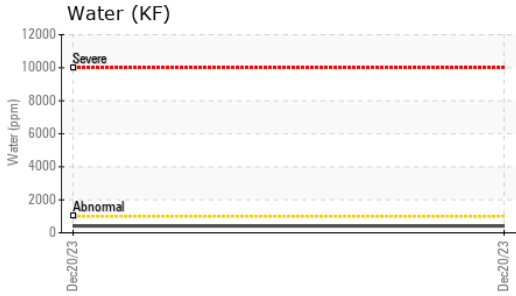
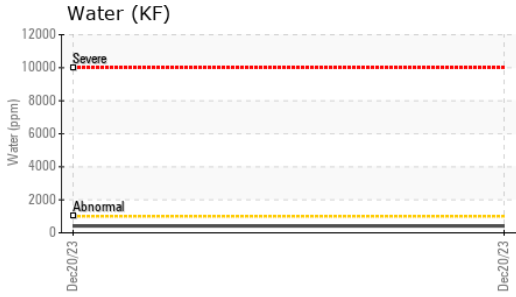
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >50	<b>0</b>	---	---
Sodium	ppm	ASTM D5185(m)	<b>&lt;1</b>	---	---
Potassium	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	---	---
Water	%	ASTM D6304* >0.1	<b>0.041</b>	---	---
ppm Water	ppm	ASTM D6304* >1000	<b>415</b>	---	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	<b>0.17</b>	---	---



# OIL ANALYSIS REPORT



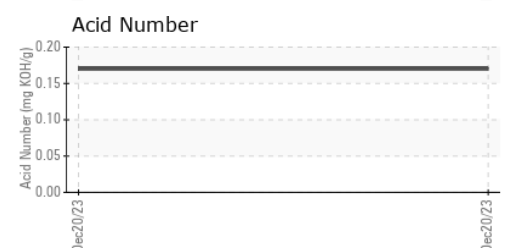
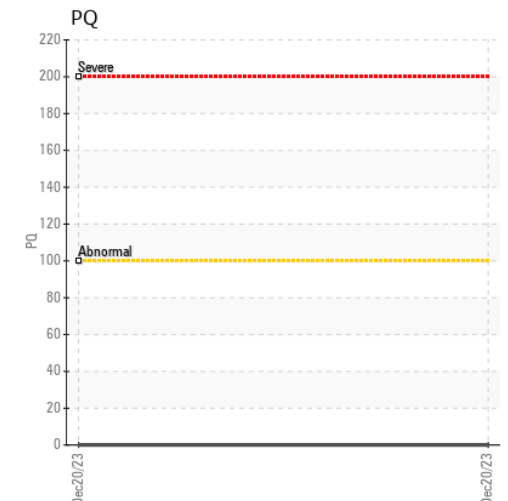
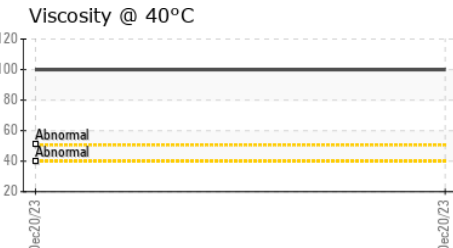
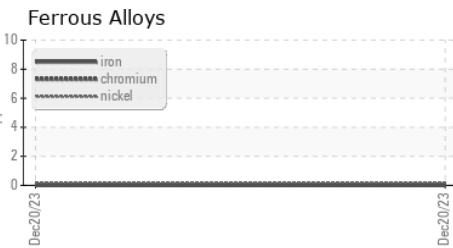
VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Precipitate	scalar	Visual*	NONE	NONE	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	---	---
Emulsified Water	scalar	Visual*	>0.1	NEG	---	---
Free Water	scalar	Visual*		NEG	---	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	100	---	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color				no image	no image
Bottom				no image	no image

### GRAPHS



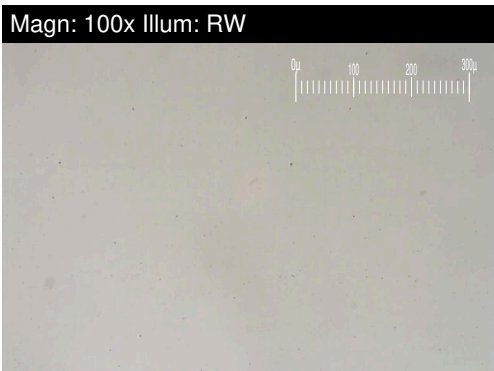
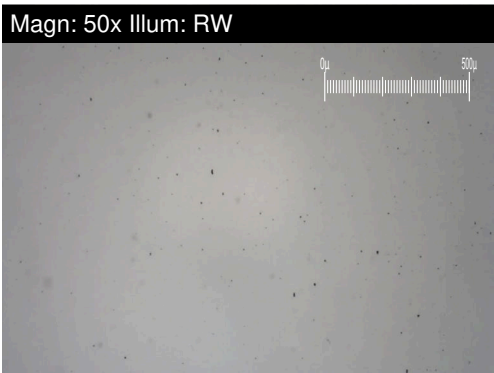
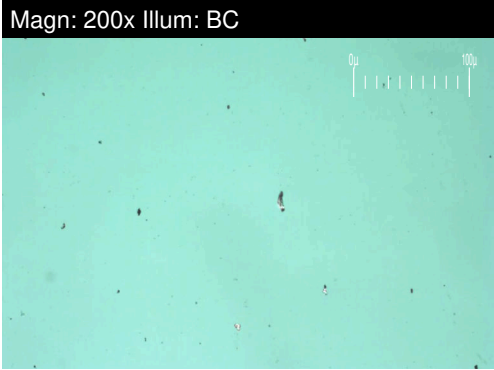
**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **Chaudiere Hydro LP - Energy Ottawa**  
**Sample No.** : WC0815883 **Received** : 10 Jan 2024 4 Booth Street  
**Lab Number** : 02607837 **Diagnosed** : 16 Jan 2024 Ottawa, ON  
**Unique Number** : 5708923 **Diagnostician** : Kevin Marson CA K1R 6K8  
**Test Package** : IND 3 ( Additional Tests: KF ) Contact: Cheryl Gharib  
info@portagepower.com

To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.

T:  
F: x:

# FERROGRAPHY REPORT

Machine Id  
**HYDROVANS GS5 COMP #2**  
 Component  
**Screw Compressor**  
 Fluid  
**CS 300 (3 LTR)**

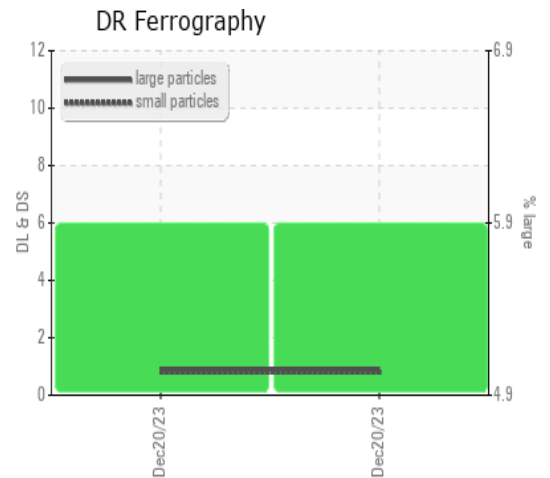


DR-FERROGRAPHY		method	limit/base	current	history1	history2
Large Particles		DR-Ferr*		<b>0.9</b>	---	---
Small Particles		DR-Ferr*		<b>0.8</b>	---	---
Total Particles		DR-Ferr*	>---	<b>1.7</b>	---	---
Large Particles Percentage	%	DR-Ferr*		<b>5.9</b>	---	---
Severity Index		DR-Ferr*		<b>0</b>	---	---

FERROGRAPHY		method	limit/base	current	history1	history2
Ferrous Rubbing	Scale 0-10	ASTM D7684*		<b>1</b>		
Ferrous Sliding	Scale 0-10	ASTM D7684*				
Ferrous Cutting	Scale 0-10	ASTM D7684*				
Ferrous Rolling	Scale 0-10	ASTM D7684*		<b>1</b>		
Ferrous Break-in	Scale 0-10	ASTM D7684*				
Ferrous Spheres	Scale 0-10	ASTM D7684*				
Ferrous Black Oxides	Scale 0-10	ASTM D7684*				
Ferrous Red Oxides	Scale 0-10	ASTM D7684*				
Ferrous Corrosive	Scale 0-10	ASTM D7684*				
Ferrous Other	Scale 0-10	ASTM D7684*				
Nonferrous Rubbing	Scale 0-10	ASTM D7684*				
Nonferrous Sliding	Scale 0-10	ASTM D7684*				
Nonferrous Cutting	Scale 0-10	ASTM D7684*				
Nonferrous Rolling	Scale 0-10	ASTM D7684*				
Nonferrous Other	Scale 0-10	ASTM D7684*				
Carbonaceous Material	Scale 0-10	ASTM D7684*				
Lubricant Degradation	Scale 0-10	ASTM D7684*				
Sand/Dirt	Scale 0-10	ASTM D7684*		<b>1</b>		
Fibres	Scale 0-10	ASTM D7684*				
Spheres	Scale 0-10	ASTM D7684*				
Other	Scale 0-10	ASTM D7684*		<b>1</b>		

### WEAR

All component wear rates are normal. The ferrography results are normal indicating no abnormal wear in the system.



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