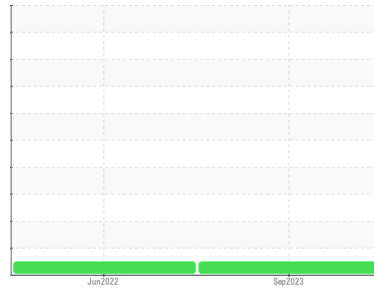




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
HYDRAULIC WINDLASS

Component
Hydraulic System

Fluid
CASTROL HYSPIIN AWS HYDRAULIC 100 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.
 NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using MAR 2 test kits, this testkit includes Particle Count to determine the ISO cleanliness of the fluid. this testkit includes AN to determine the suitability of the oil for continued use.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the component(unconfirmed).

Fluid Condition

The condition of the oil is acceptable for the time in service (unconfirmed).

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			WC0773465	WC0713722	---
Sample Date	Client Info			16 Sep 2023	29 Jun 2022	---
Machine Age	hrs	Client Info		1330	1196	---
Oil Age	hrs	Client Info		1330	0	---
Oil Changed	Client Info			Not Chngd	N/A	---
Sample Status				NORMAL	NORMAL	---

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>0.1	NEG	NEG	---

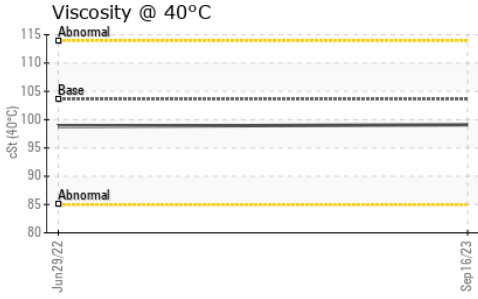
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	<1	1	---
Chromium	ppm	ASTM D5185(m)	>10	0	0	---
Nickel	ppm	ASTM D5185(m)	>10	<1	0	---
Titanium	ppm	ASTM D5185(m)		0	0	---
Silver	ppm	ASTM D5185(m)		<1	0	---
Aluminum	ppm	ASTM D5185(m)	>10	0	0	---
Lead	ppm	ASTM D5185(m)	>10	<1	<1	---
Copper	ppm	ASTM D5185(m)	>75	1	1	---
Tin	ppm	ASTM D5185(m)	>10	0	0	---
Antimony	ppm	ASTM D5185(m)		0	0	---
Vanadium	ppm	ASTM D5185(m)		0	0	---
Beryllium	ppm	ASTM D5185(m)		0	0	---
Cadmium	ppm	ASTM D5185(m)		0	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		<1	<1	---
Barium	ppm	ASTM D5185(m)		<1	0	---
Molybdenum	ppm	ASTM D5185(m)		0	0	---
Manganese	ppm	ASTM D5185(m)		0	<1	---
Magnesium	ppm	ASTM D5185(m)		<1	1	---
Calcium	ppm	ASTM D5185(m)		51	53	---
Phosphorus	ppm	ASTM D5185(m)		395	388	---
Zinc	ppm	ASTM D5185(m)		494	492	---
Sulfur	ppm	ASTM D5185(m)		7418	7503	---
Lithium	ppm	ASTM D5185(m)		<1	<1	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>20	<1	<1	---
Sodium	ppm	ASTM D5185(m)		2	2	---
Potassium	ppm	ASTM D5185(m)	>20	0	<1	---



OIL ANALYSIS REPORT



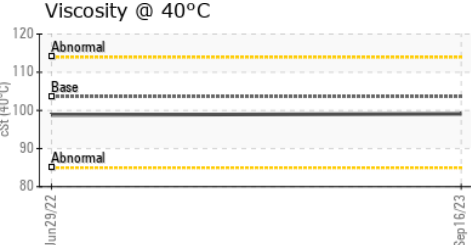
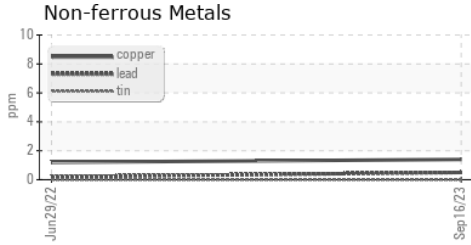
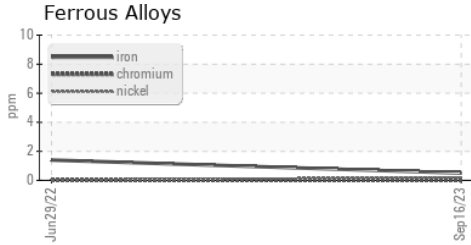
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	---
Precipitate	scalar	Visual*	NONE	NONE	---
Silt	scalar	Visual*	NONE	VLITE	---
Debris	scalar	Visual*	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---
Appearance	scalar	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)	103.6	99.1	98.8

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

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0773465
Lab Number : **02590655**
Unique Number : 5659721
Test Package : MAR 1

Horizon Maritime Services Ltd. - Horizon Arctic
 87 WATER STREET., 2ND FLOOR
 ST. JOHNS, NL
 CA A1C 1A5

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.

Contact: Horizon Arctic Chief Engineer
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