WEAR CONTAMINATION **FLUID CONDITION**

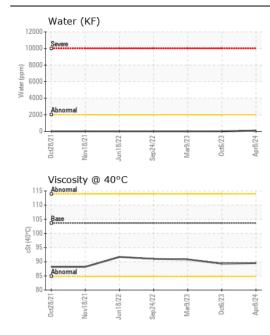
NORMAL NORMAL NORMAL

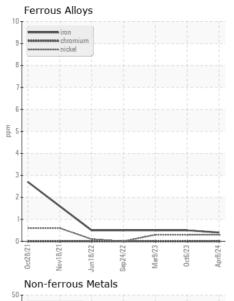
Machine Id

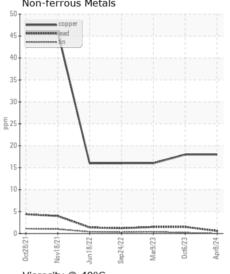
REDUCTION GEAR PORT

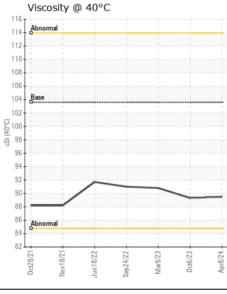
Port Gearbox

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor. 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 AN to determine the suitability of the oil for continued use.	Sample Number		Client Info		WC0902417	WC0773494	WC
	Sample Date		Client Info		08 Apr 2024	06 Oct 2023	09 Mar 202
	Machine Age	hrs	Client Info		40513	37579	23573
	Oil Age	hrs	Client Info		0	0	0
	Filter Age	hrs	Client Info		0	0	0
	Oil Changed		Client Info		N/A	N/A	N/A
	Filter Changed		Client Info		N/A	N/A	N/A
	Sample Status				NORMAL	NORMAL	NORMAI
WEAR	Iron	ppm	ASTM D5185(m)	>200	<1	<1	<1
All component wear rates are normal.	Chromium	ppm	ASTM D5185(m)	>10	0	0	0
	Nickel	ppm	ASTM D5185(m)		<1	<1	<1
	Titanium	ppm	ASTM D5185(m)		0	0	0
	Silver	ppm	ASTM D5185(m)		0	<1	0
	Aluminum	ppm	ASTM D5185(m)	>25	0	0	0
	Lead	ppm	ASTM D5185(m)	>50	<1	2	2
	Copper	ppm	ASTM D5185(m)	>200	18	18	16
	Tin	ppm	ASTM D5185(m)	>10	0	<1	<1
	Vanadium	ppm	ASTM D5185(m)		0	0	0
	White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon	ppm	ASTM D5185(m)	>50	0	<1	0
The water content is negligible. There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185(m)	>20	0	0	<1
	Water	%	ASTM D6304*	>0.2	0.009		
	ppm Water	ppm	ASTM D6304*	>2000	95		
	Silt	scalar	Visual*	NONE	NONE	NONE	NONE
	Debris	scalar	Visual*	NONE	NONE	NONE	NONE
	Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
	Appearance	scalar	Visual*	NORML	NORML	NORML	NORM
	Odor	scalar	Visual*	NORML	NORML	NORML	NORM
	Emulsified Water	scalar	Visual*	>0.2	.2%	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185(m)		0	<1	0
The condition of the oil is acceptable for the time in service (unconfirmed).	Boron	ppm	ASTM D5185(m)		<1	<1	<1
	Barium	ppm	ASTM D5185(m)		0	<1	0
	Molybdenum	ppm	ASTM D5185(m)		0	0	0
	Manganese	ppm	ASTM D5185(m)		0	0	0
	Magnesium	ppm	ASTM D5185(m)		<1	0	0
	Calcium	ppm	ASTM D5185(m)		58	60	63
	Phosphorus	ppm	ASTM D5185(m)		343	350	387
	Zinc	ppm	ASTM D5185(m)		423	430	433
	Sulfur	ppm	ASTM D5185(m)		4068	4141	4479











CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No.

Lab Number : 02630958 Unique Number : 5772111

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 : WC0902417

Test Package : MAR 1 (Additional Tests: KF)

Received

: 23 Apr 2024 **Tested** Diagnosed

: 24 Apr 2024 : 24 Apr 2024 - Wes Davis

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

CA A1C 1A5 Contact: Horizon Arctic Chief Engineer chiefeng.arctic@horizonvessel.com

T: (709)702-4447

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.

F: