



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
L.N. HEADWORKS GRAPPLER HOIST

Component
Gearbox

Fluid
{not provided} (--- GAL)

RECOMMENDATION

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

WEAR

All component wear rates are normal.

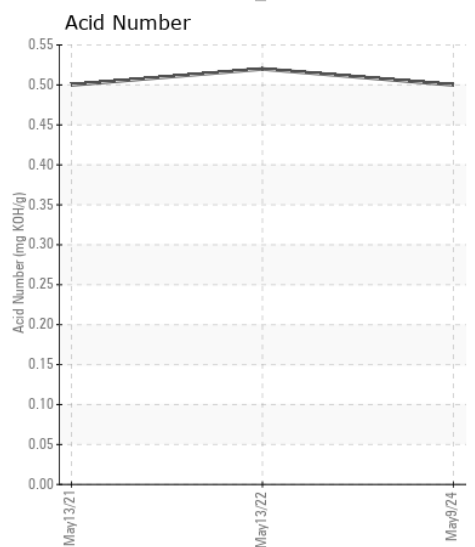
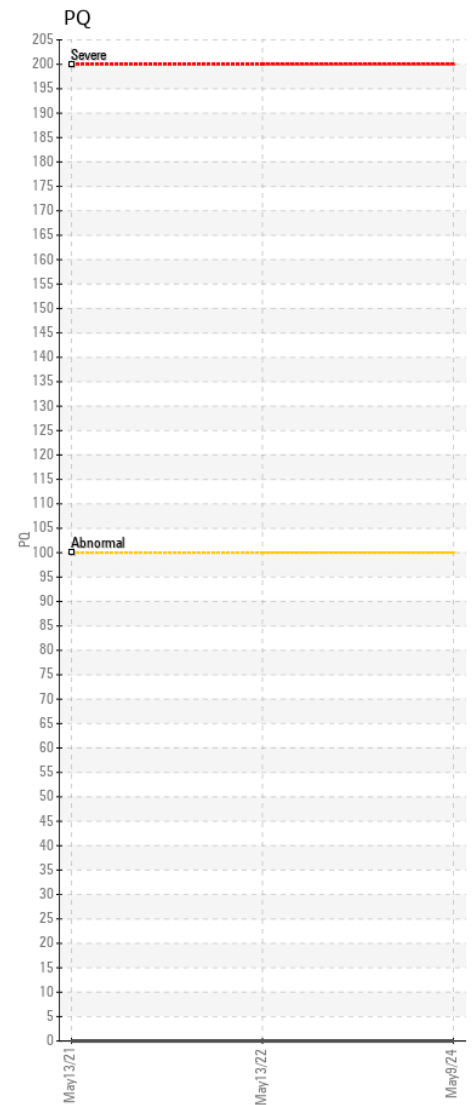
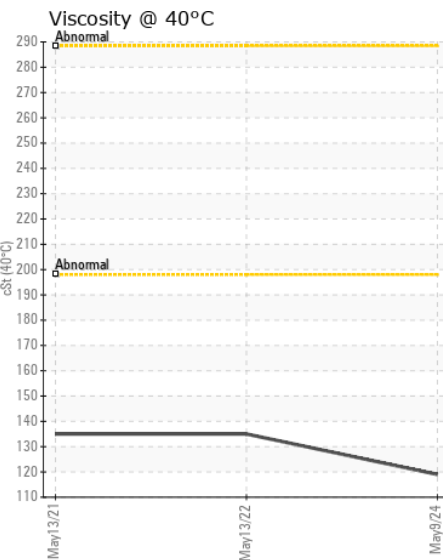
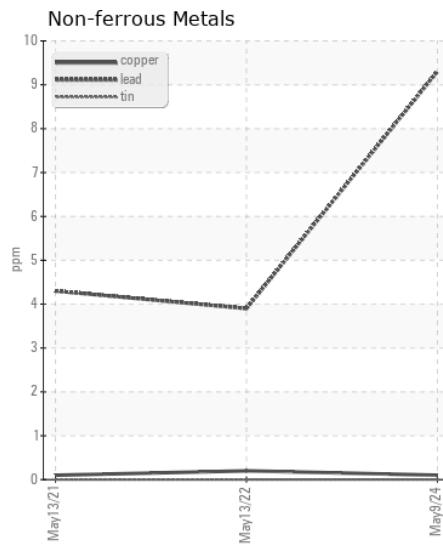
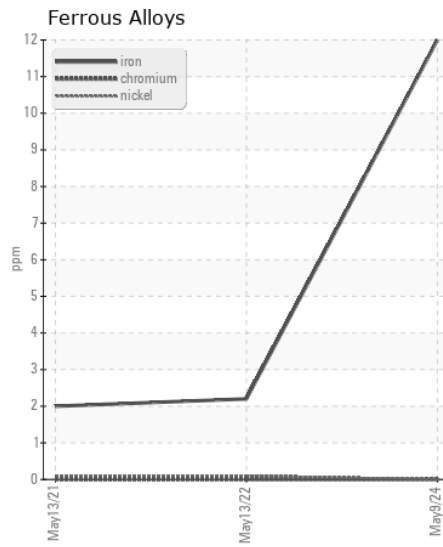
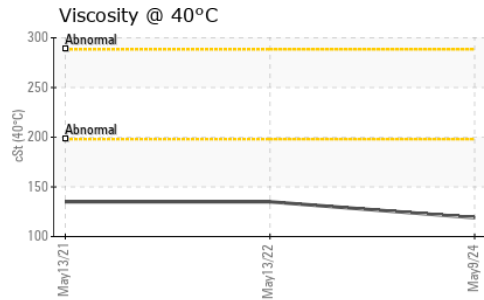
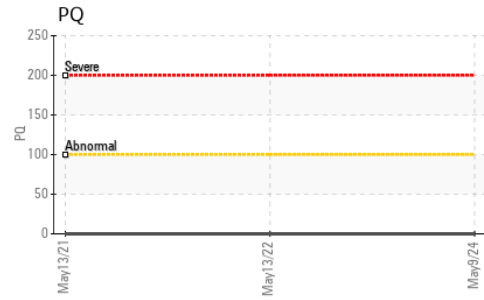
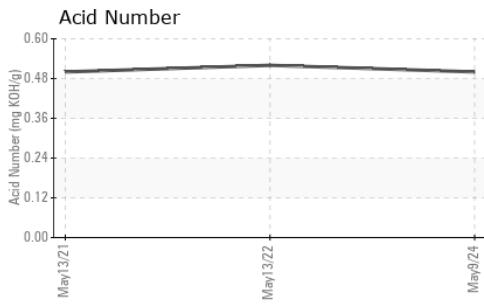
CONTAMINATION

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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0750938	WC0490897	WC0578721
Sample Date		Client Info		09 May 2024	13 May 2022	13 May 2021
Machine Age	yrs	Client Info		2	1	0
Oil Age	yrs	Client Info		2	1	1
Filter Age	yrs	Client Info		0	1	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		N/A	Not Changd	N/A
Sample Status				NORMAL	NORMAL	NORMAL
PQ		ASTM D8184*		0	0	0
Iron	ppm	ASTM D5185(m)	>200	12	2	2
Chromium	ppm	ASTM D5185(m)	>15	0	0	0
Nickel	ppm	ASTM D5185(m)	>15	0	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	0	<1
Aluminum	ppm	ASTM D5185(m)	>25	<1	<1	<1
Lead	ppm	ASTM D5185(m)	>100	9	4	4
Copper	ppm	ASTM D5185(m)	>200	<1	<1	<1
Tin	ppm	ASTM D5185(m)	>25	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185(m)	>50	2	2	2
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Water		WC Method	>0.2	NEG	NEG	NEG
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	LIGHT	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Sodium	ppm	ASTM D5185(m)		3	3	3
Boron	ppm	ASTM D5185(m)		6	6	6
Barium	ppm	ASTM D5185(m)		1	1	1
Molybdenum	ppm	ASTM D5185(m)		0	0	0
Manganese	ppm	ASTM D5185(m)		<1	<1	<1
Magnesium	ppm	ASTM D5185(m)		8	7	7
Calcium	ppm	ASTM D5185(m)		281	306	301
Phosphorus	ppm	ASTM D5185(m)		298	236	218
Zinc	ppm	ASTM D5185(m)		204	223	221
Sulfur	ppm	ASTM D5185(m)		4945	3749	3716
Acid Number (AN)	mg KOH/g	ASTM D974*		0.50	0.52	0.50
Visc @ 40°C	cSt	ASTM D7279(m)		119	135	135



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0750938
Lab Number : 02635066
Unique Number : 5776219
Test Package : IND 2
Received : 13 May 2024
Tested : 14 May 2024
Diagnosed : 14 May 2024 - Kevin Marson

Ontario Power Generation
 DYMOND WORK CENTRE, R.R. # 1, HWY #65 W
 NEW LISKEARD, ON
 CA POJ 1P0
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 T: (705)648-6106
 F: (705)647-7613

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.