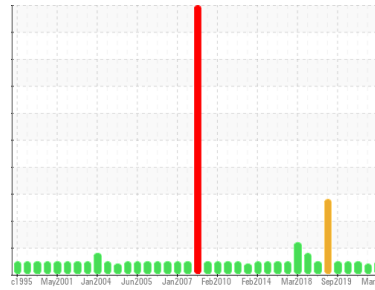




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**S.O.P**  
 Machine Id  
**45-2101**

Component  
**Reduction Gear**  
 Fluid

**MOBIL MOBILGEAR SHC 220 (60 LTR)**

## DIAGNOSIS

### Recommendation

Confirm the source of the lubricant being utilized for top-up/fill. Échantillonner de nouveau l'équipement au prochain intervalle de vidange afin d'en surveiller la condition.

### Wear

Les taux d'usure de tous les composants sont normaux.

### Contamination

Il n'y a aucun indice de contamination dans l'huile.

### Fluid Condition

Les niveaux d'additifs indiquent l'ajout d'une autre marque ou d'un autre type d'huile. L'état de l'huile est acceptable pour la durée de service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>WC0782100</b>	WC0712790	WC0628588
Sample Date	Client Info			<b>14 Mar 2023</b>	24 Oct 2022	08 Oct 2021
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>	ABNORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>117	<b>63</b>	22	48
Chromium	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185(m)	>2	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185(m)		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>11	<b>8</b>	2	4
Lead	ppm	ASTM D5185(m)	>10	<b>0</b>	0	<1
Copper	ppm	ASTM D5185(m)	>55	<b>&lt;1</b>	<1	4
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	<1	0
Antimony	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0	0

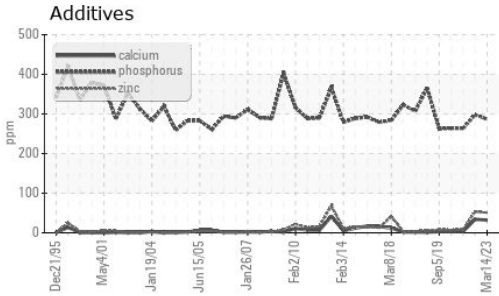
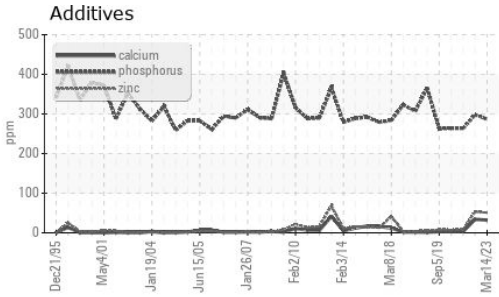
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		<b>17</b>	18	28
Barium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	0
Molybdenum	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	0
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	0
Calcium	ppm	ASTM D5185(m)		<b>32</b>	34	4
Phosphorus	ppm	ASTM D5185(m)		<b>287</b>	298	264
Zinc	ppm	ASTM D5185(m)		<b>51</b>	53	8
Sulfur	ppm	ASTM D5185(m)		<b>6203</b>	6691	9013
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>50	<b>12</b>	11	5
Sodium	ppm	ASTM D5185(m)		<b>4</b>	2	2
Potassium	ppm	ASTM D5185(m)	>20	<b>5</b>	4	1

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624*		<b>2.8</b>	2.9	2.8
Sulfation	Abs/.1mm	ASTM D7415*		<b>15.1</b>	13.1	15.0

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*		<b>5.1</b>	3.7	4.7

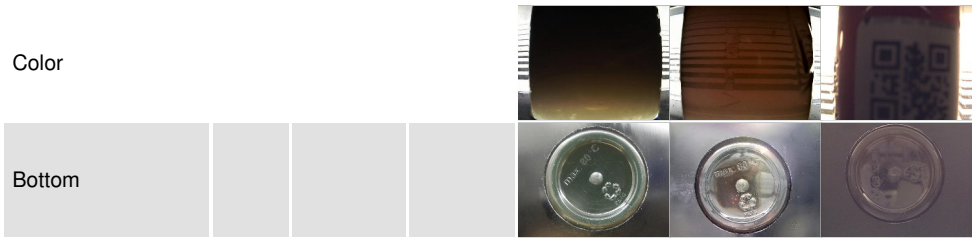
# OIL ANALYSIS REPORT



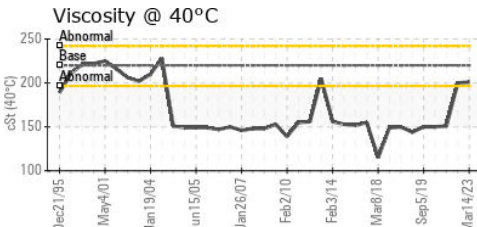
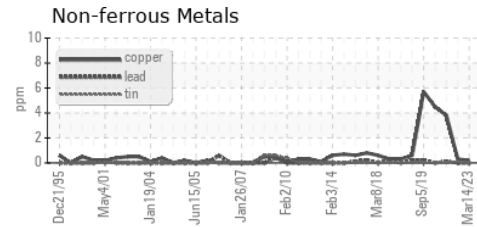
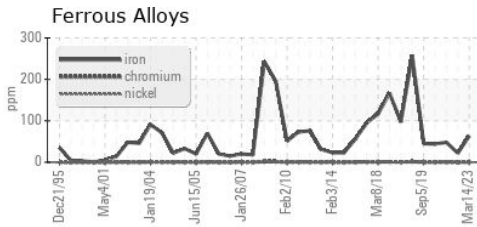
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	VLITE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	220	201	200

SAMPLE IMAGES	method	limit/base	current	history1	history2
---------------	--------	------------	---------	----------	----------



## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0782100 **Received** : 20 Mar 2023  
**Lab Number** : 02546450 **Diagnosed** : 20 Mar 2023  
**Unique Number** : 5551460 **Diagnostician** : Kevin Marson  
**Test Package** : IND 1 ( Additional Tests: FT-IR )

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.

**RTA - UGB**  
 C.P. 900  
 Ville de la Baie, QC  
 CA G7B 4G9  
 Contact: Alcan Epc  
 mathieu.tremblay2@riotinto.com  
 T: (418)697-9568  
 F: (418)697-9550