



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area  
**GOLDEN BEAR LGL**  
Machine Id  
**MRC-248**  
Component  
**Natural Gas Engine**  
Fluid  
**{not provided} (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>TO60002107</b>	TO70000247	TO60000299
Sample Date		Client Info		<b>05 Feb 2024</b>	07 Feb 2023	07 Oct 2022
Machine Age	hrs	Client Info		<b>8649</b>	7038	4132
Oil Age	hrs	Client Info		<b>0</b>	0	4132
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	Not Changd
Filter Changed		Client Info		<b>N/A</b>	N/A	Not Changd
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<b>6</b>	1	3
Chromium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>9	<b>1</b>	1	0
Lead	ppm	ASTM D5185m	>30	<b>18</b>	0	3
Copper	ppm	ASTM D5185m	>35	<b>3</b>	0	3
Tin	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

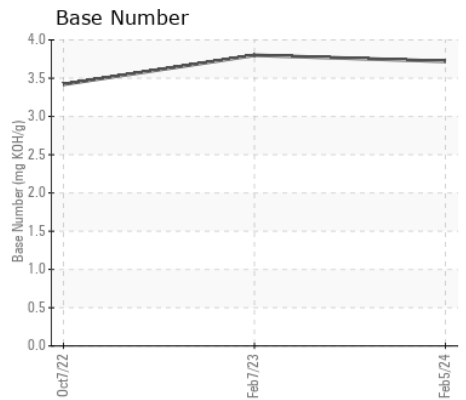
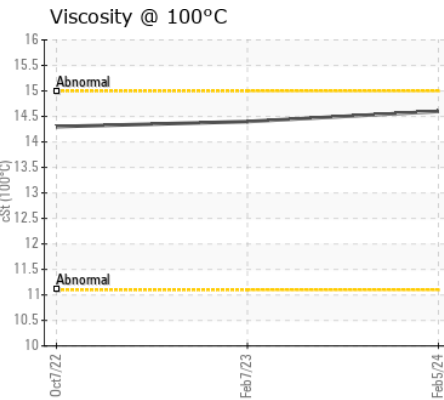
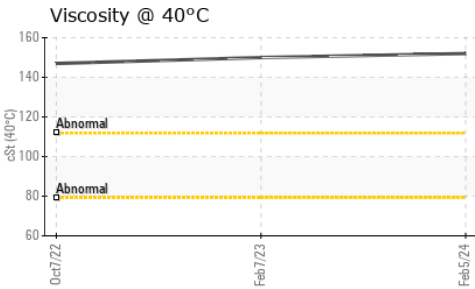
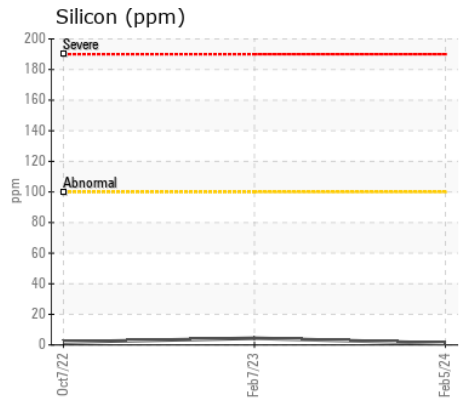
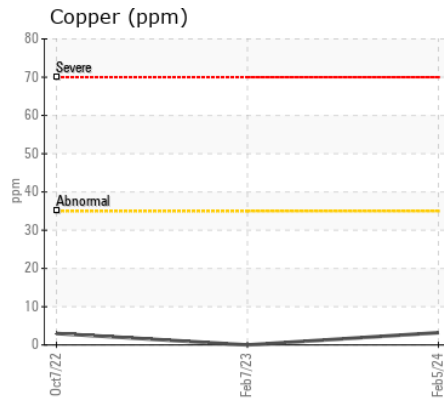
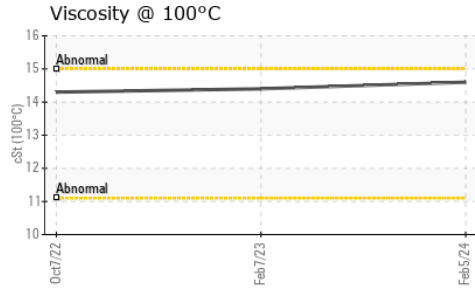
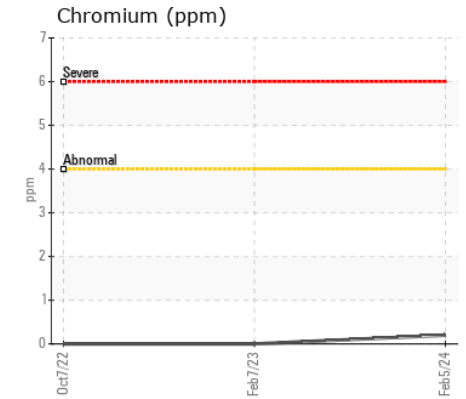
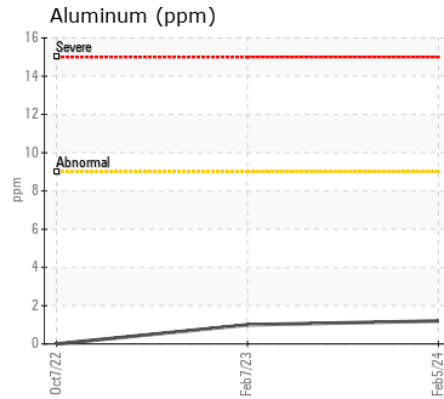
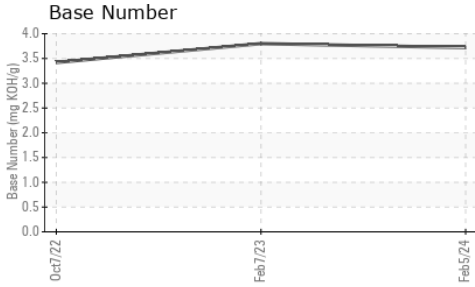
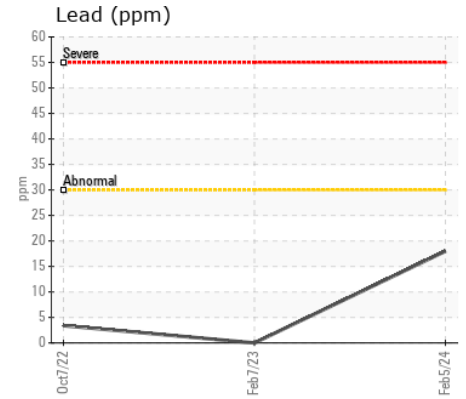
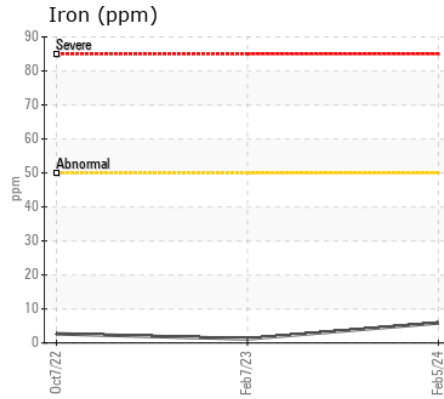
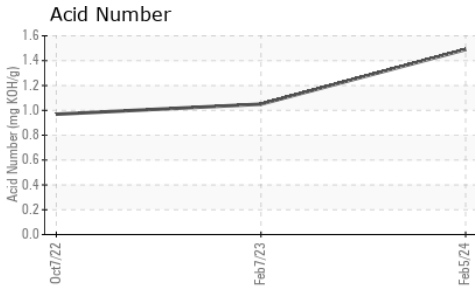
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>+100	<b>1</b>	4	2
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	0	0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844		<b>0</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.4</b>	7.4	9.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.0</b>	14.3	20.5
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>0</b>	2	4
Boron	ppm	ASTM D5185m		<b>98</b>	132	29
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>2</b>	1	1
Manganese	ppm	ASTM D5185m		<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m		<b>23</b>	11	9
Calcium	ppm	ASTM D5185m		<b>1377</b>	1314	1408
Phosphorus	ppm	ASTM D5185m		<b>283</b>	252	285
Zinc	ppm	ASTM D5185m		<b>351</b>	264	343
Sulfur	ppm	ASTM D5185m		<b>1772</b>	786	2375
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>20.0</b>	10.4	18.6
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>1.49</b>	1.05	0.969
Base Number (BN)	mg KOH/g	ASTM D2896		<b>3.72</b>	3.80	3.42
Visc @ 40°C	cSt	ASTM D445		<b>152</b>	150	147
Visc @ 100°C	cSt	ASTM D445		<b>14.6</b>	14.4	14.3
Viscosity Index (VI)	Scale	ASTM D2270		<b>94</b>	93	94



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : TO60002107

Lab Number : 06087574

Unique Number : 10875019

Test Package : MOB 2 ( Additional Tests: KV40, VI )

Received : 13 Feb 2024

Tested : 14 Feb 2024

Diagnosed : 14 Feb 2024 - Don Baldrige

MIDLAND - EOG RESOURCES INC.

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MIDLAND, TX

US 79706

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To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)