



## [REMAN] 020173 - Gasoline Engine

Sample No: LH0230707

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Oil Type: CASTROL EDGE FST 0W20

ample Number		LH0230707	LH0230780	LH0178182	LH0083435
Sample Date		05 Sep 2023	30 Sep 2022	30 Aug 2021	21 Jan 2018
Machine Hours		8100	8000	8000	0
Oil Hours		0	0	0	0
Oil Changed		N/A	N/A	N/A	N/A
Sample Status		ABNORMAL	ABNORMAL	ABNORMAL	ABNORMAL
OIL CO	ONDITIC	N			
Visc @ 40°C	cSt				0 81.0
Visc @ 100°C	cSt	07.2	6.9	07	<b>5</b> .9
Viscosity Index (VI)	Scale				172
Oxidation (PA)	%	54	59	56	0 45
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CONT	AMINA	TION			
Soot %	%	0	0	0	0
Nitration (PA)	%	44	86	78	82
Sulfation (PA)	%	50	57	53	50
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<b>0</b> 4.5	<b>5</b> .9	0 4.4	<b>5</b> .0
Silicon	ppm	9	0 10	0 11	6
Sodium	ppm	02	02	02	02
Potassium	ppm	<b>○</b> <1	○ <1	◯ <1	◯ <1
WEAP	R META	LS	03	03	06
Copper	ppm	0 <1	0 <1	0 <1	01
Lead	ppm	0	0 <1	0	0
Tin	ppm	0	00	0	0 <1
Aluminum	ppm	01	0 2	0 2	02
Chromium	ppm	0	00	0 0	0 <1
Molybdenum	ppm	73	65	67	70
Nickel	ppm	0	0 0	0 <1	0 <1
Titanium	ppm	2	<1	0	0 <1
Silver	ppm	0	0	0	00
Manganese	ppm	0	0	0	0
Vanadium	ppm	0	0	0	0
Calcium	ppm	1132	1196	1203	1910
Magnesium	ppm	526	485	527	16
Zinc	ppm	725	0 709	744	729
2010			-	-	
	ppm	674	686	694	649
Phosphorus Barium	ppm ppm	674 0	0	<1	<1

## LIEBHERR CANADA LTD. - REMAN

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## Diagnosis

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.All component wear rates are normal. There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Depot:REMANUnique No:5641995Signed:Kevin MarsonReport Date:08 Sep 2023

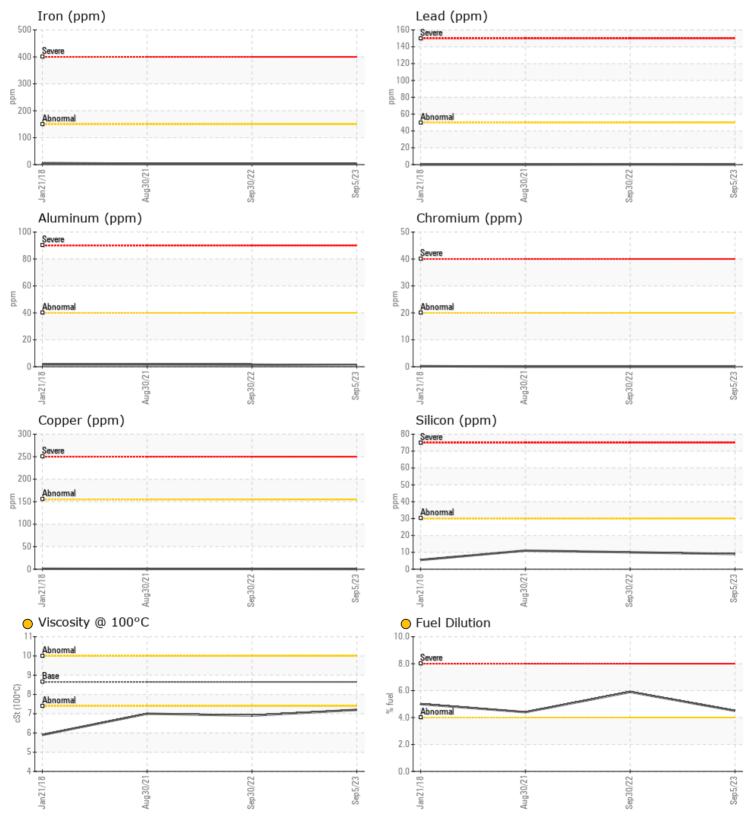
Contact/Location: Morteza Mahmoudi - REMAN





GRAPHS

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Contact/Location: Morteza Mahmoudi - REMAN