



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
LIEBHERR 111447

Component
Drilling Drive

Fluid
PETRO CANADA TRAXON XL SYN BLEND 75W90 (140 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0250436	---	---
Sample Date		Client Info		05 Dec 2023	---	---
Machine Age	hrs	Client Info		873	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				NORMAL	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>200	10	---	---
Chromium	ppm	ASTM D5185(m)	>5	0	---	---
Nickel	ppm	ASTM D5185(m)	>5	<1	---	---
Titanium	ppm	ASTM D5185(m)		0	---	---
Silver	ppm	ASTM D5185(m)		0	---	---
Aluminum	ppm	ASTM D5185(m)	>5	0	---	---
Lead	ppm	ASTM D5185(m)	>5	0	---	---
Copper	ppm	ASTM D5185(m)	>50	<1	---	---
Tin	ppm	ASTM D5185(m)	>5	0	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

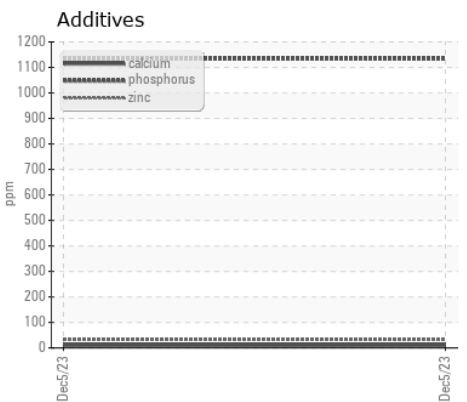
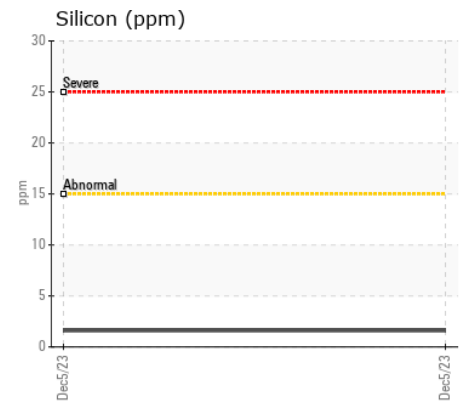
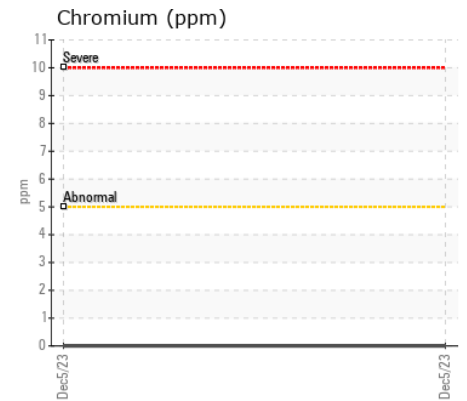
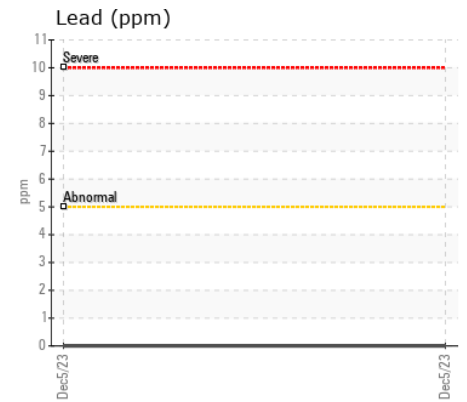
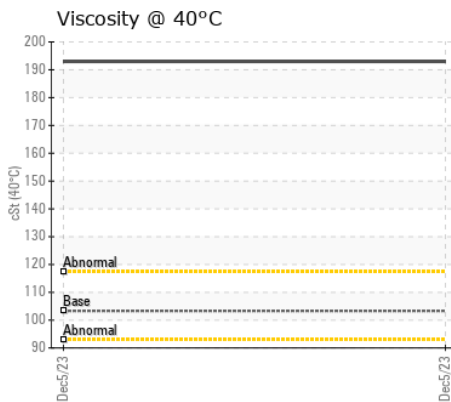
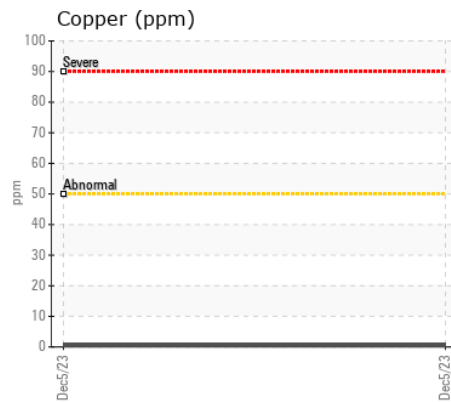
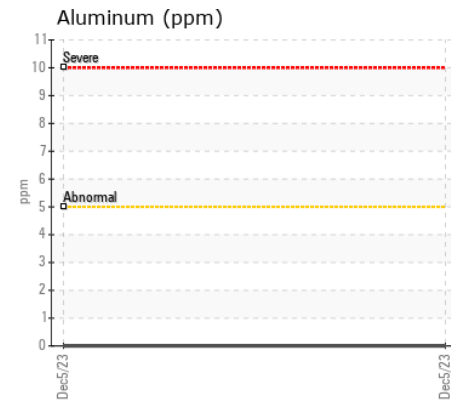
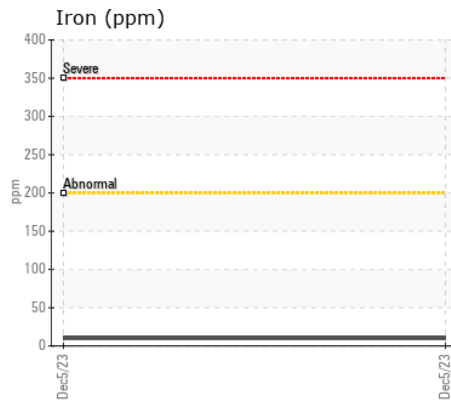
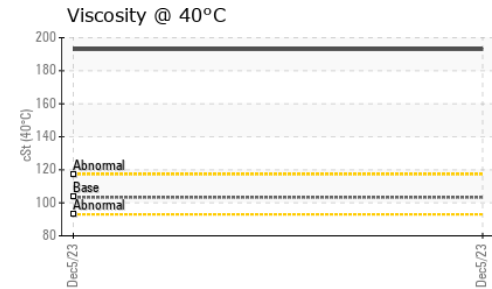
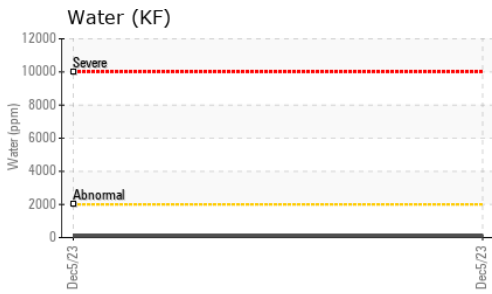
The water content is negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>15	2	---	---
Potassium	ppm	ASTM D5185(m)	>20	<1	---	---
Water	%	ASTM D6304*	>0.2	0.009	---	---
ppm Water	ppm	ASTM D6304*	>2000	93	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	VLITE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	---	---
Emulsified Water	scalar	Visual*	>0.2	NEG	---	---

FLUID CONDITION

Viscosity of sample indicates oil is within SAE 90 range, advise investigate. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		2	---	---
Boron	ppm	ASTM D5185(m)	291	6	---	---
Barium	ppm	ASTM D5185(m)	1	<1	---	---
Molybdenum	ppm	ASTM D5185(m)		0	---	---
Manganese	ppm	ASTM D5185(m)		0	---	---
Magnesium	ppm	ASTM D5185(m)	1	<1	---	---
Calcium	ppm	ASTM D5185(m)	1	11	---	---
Phosphorus	ppm	ASTM D5185(m)	1121	1134	---	---
Zinc	ppm	ASTM D5185(m)	1	32	---	---
Sulfur	ppm	ASTM D5185(m)	20900	24811	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	103.3	193	---	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0250436 **Received** : 01 Apr 2024
Lab Number : 02625771 **Tested** : 02 Apr 2024
Unique Number : 5750890 **Diagnosed** : 02 Apr 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: KF)

KELLER FOUNDATION LTD
 ZONE 3, ACHESON INDUSTRIAL AREA, 2-53016 HWY 60
 ACHESON, AB
 CA T7X 5A7
 Contact:

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.

T:
F: