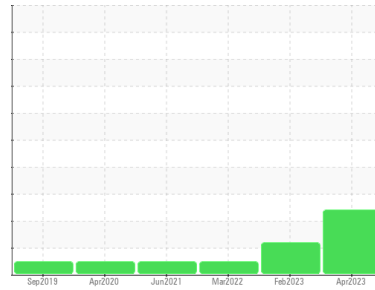




# OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Machine Id  
**INTERNATIONAL 42**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON HP 15W40 (--- Oz)**

## DIAGNOSIS

### Recommendation

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

### Wear

All component wear rates are normal.

### Contamination

Sodium and/or potassium levels remain high.

### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil.

## SAMPLE INFORMATION

	method	limit/base	current	history 1	history 2
Sample Number	Client Info		<b>PCA0083480</b>	PCA0083496	PCA0066172
Sample Date	Client Info		<b>20 Apr 2023</b>	02 Feb 2023	22 Mar 2022
Machine Age	mls	Client Info	<b>3373</b>	11877	10964
Oil Age	mls	Client Info	<b>3373</b>	11877	10964
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>ABNORMAL</b>	ABNORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history 1	history 2
Fuel	WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0

## WEAR METALS

	method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m >100	<b>32</b>	75	72
Chromium	ppm	ASTM D5185m >20	<b>3</b>	4	3
Nickel	ppm	ASTM D5185m >4	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>2</b>	2	2
Lead	ppm	ASTM D5185m >40	<b>2</b>	3	3
Copper	ppm	ASTM D5185m >330	<b>72</b>	7	8
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	1	<1
Antimony	ppm	ASTM D5185m	<b>---</b>	---	---
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m	<b>35</b>	2	4
Barium	ppm	ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>56</b>	66	63
Manganese	ppm	ASTM D5185m	<b>1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	<b>865</b>	940	1062
Calcium	ppm	ASTM D5185m	<b>938</b>	1062	1187
Phosphorus	ppm	ASTM D5185m	<b>917</b>	940	1090
Zinc	ppm	ASTM D5185m	<b>1165</b>	1235	1265
Sulfur	ppm	ASTM D5185m	<b>3088</b>	3353	2742

## CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m >25	<b>8</b>	7	11
Sodium	ppm	ASTM D5185m	<b>▲ 94</b>	39	3
Potassium	ppm	ASTM D5185m >20	<b>▲ 986</b>	▲ 316	6
Glycol	%	*ASTM D2982	<b>NEG</b>	NEG	NEG

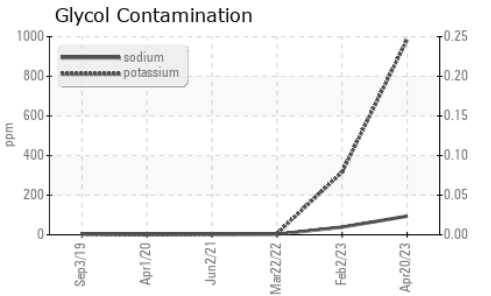
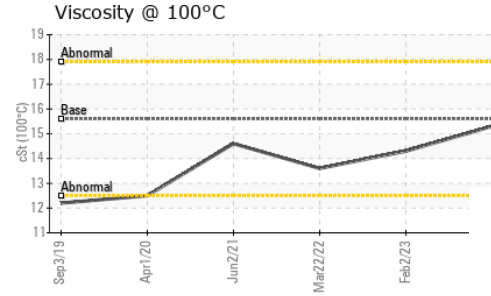
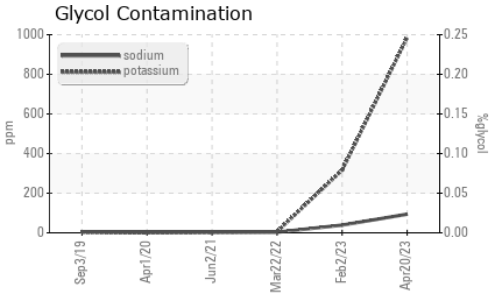
## INFRA-RED

	method	limit/base	current	history 1	history 2
Soot %	%	*ASTM D7844 >3	<b>0.4</b>	0.8	1
Nitration	Abs/cm	*ASTM D7624 >20	<b>9.7</b>	10.6	11.3
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>18.1</b>	23.4	25.9

## FLUID DEGRADATION

	method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>15.1</b>	20.5	24.7
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>16.3</b>	7.9	7.6

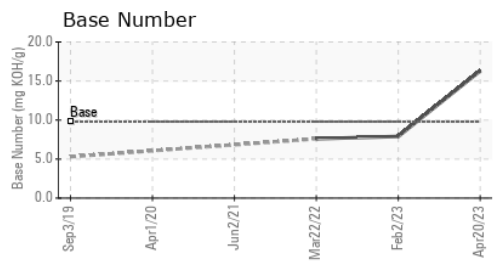
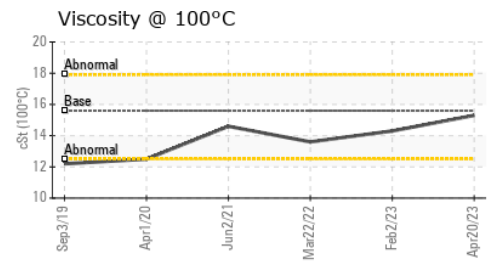
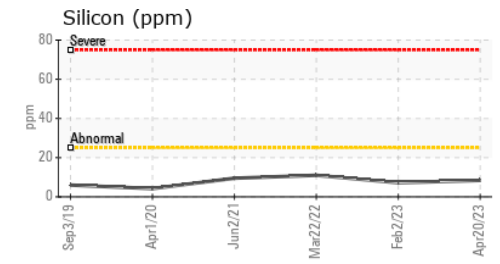
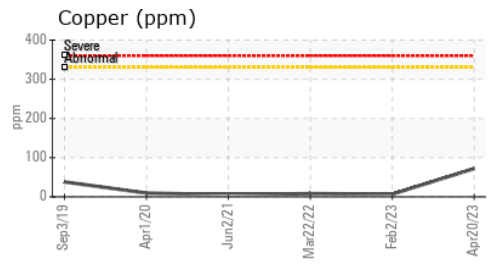
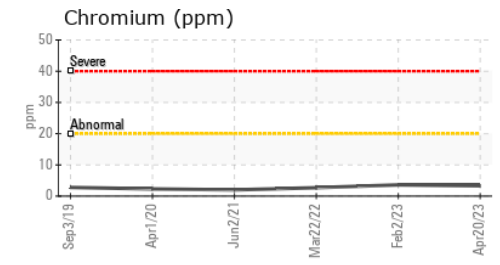
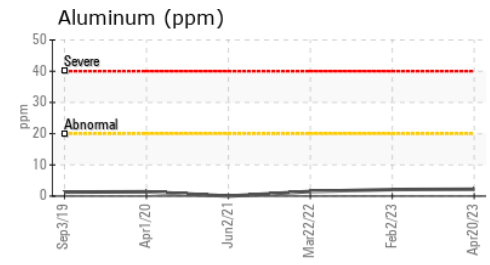
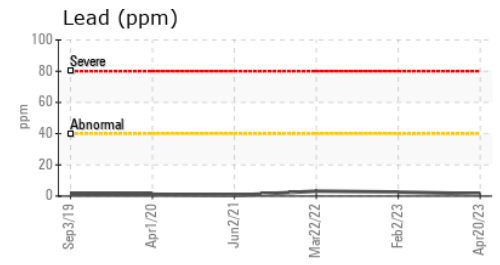
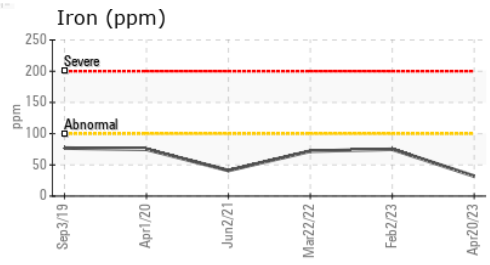
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history 1	history 2
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	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history 1	history 2
Visc @ 100°C	cSt	ASTM D445	15.6	15.3	14.3

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0083480 **Received** : 26 Apr 2023  
**Lab Number** : 05830637 **Diagnosed** : 28 Apr 2023  
**Unique Number** : 10444130 **Diagnostician** : Jonathan Hester  
**Test Package** : MOB 1 ( Additional Tests: Glycol, TBN )

**ALBERT HOGOBOOM OILFIELD TRUCKING INC**  
 767 OIL HILL ROAD  
 EL DORADO, KS  
 US 67042  
 Contact: LOREN JACK  
 loren@hogoboom.net  
 T:  
 F: (316)321-1396

Certificate L2367  
 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)