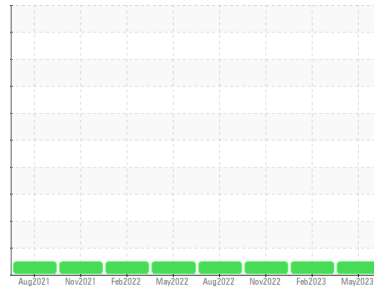


# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**Pickle Line**  
 Machine Id  
**[Pickle Line] 585035-EXIT LOOPER WINCH-DELIVERY**  
 Component  
**Gearbox**  
 Fluid  
**PETRO CANADA ENDURATEX EP 220 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.  
 NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

## SAMPLE INFORMATION

method	limit/base	current	history 1	history 2
Sample Number	Client Info	<b>PCA0095469</b>	PCA0089504	PCA0081739
Sample Date	Client Info	<b>23 May 2023</b>	23 Feb 2023	22 Nov 2022
Machine Age	hrs	<b>0</b>	0	0
Oil Age	hrs	<b>0</b>	0	0
Oil Changed	Client Info	<b>Not Changed</b>	Not Changed	Not Changed
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL

## WEAR METALS

method	limit/base	current	history 1	history 2	
PQ	ASTM D8184	<b>15</b>	16	---	
Iron	ppm	ASTM D5185m >200	<b>30</b>	30	3
Chromium	ppm	ASTM D5185m >15	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m >15	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >25	<b>&lt;1</b>	<1	0
Lead	ppm	ASTM D5185m >100	<b>0</b>	0	0
Copper	ppm	ASTM D5185m >200	<b>&lt;1</b>	<1	0
Tin	ppm	ASTM D5185m >25	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history 1	history 2	
Boron	ppm	ASTM D5185m 60	<b>4</b>	7	69
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m 0	<b>1</b>	<1	<1
Calcium	ppm	ASTM D5185m 0	<b>2</b>	4	53
Phosphorus	ppm	ASTM D5185m 270	<b>128</b>	116	265
Zinc	ppm	ASTM D5185m 0	<b>2</b>	9	16
Sulfur	ppm	ASTM D5185m 11200	<b>8036</b>	7365	6937

## CONTAMINANTS

method	limit/base	current	history 1	history 2	
Silicon	ppm	ASTM D5185m >50	<b>6</b>	7	5
Sodium	ppm	ASTM D5185m	<b>&lt;1</b>	2	0
Potassium	ppm	ASTM D5185m >20	<b>2</b>	<1	0

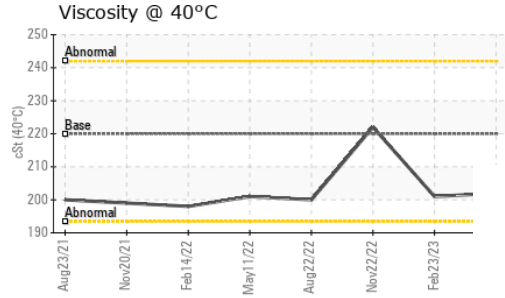
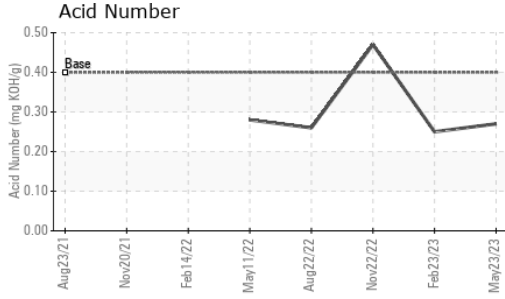
## FLUID DEGRADATION

method	limit/base	current	history 1	history 2	
Acid Number (AN)	mg KOH/g	ASTM D8045 0.40	<b>0.27</b>	0.25	0.47

## VISUAL

method	limit/base	current	history 1	history 2	
White Metal	scalar	*Visual NONE	<b>NONE</b>	NONE	MODER
Yellow Metal	scalar	*Visual NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	*Visual NONE	<b>NONE</b>	NONE	NONE
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 >0.2	<b>NEG</b>	NEG	NEG
Free Water	scalar	*Visual	<b>NEG</b>	NEG	NEG

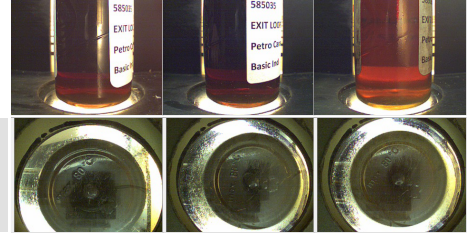
# OIL ANALYSIS REPORT



FLUID PROPERTIES		method	limit/base	current	history 1	history 2
Visc @ 40°C	cSt	ASTM D445	220	202	201	222

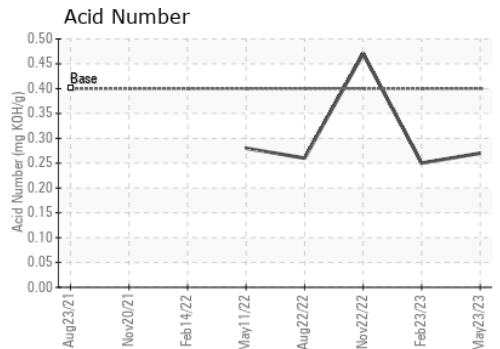
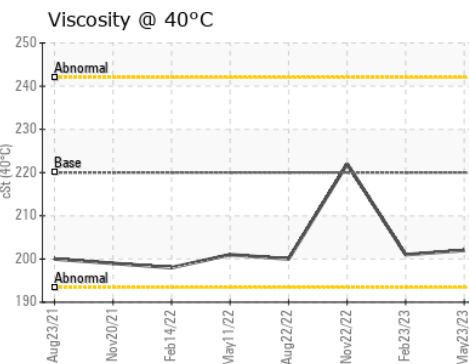
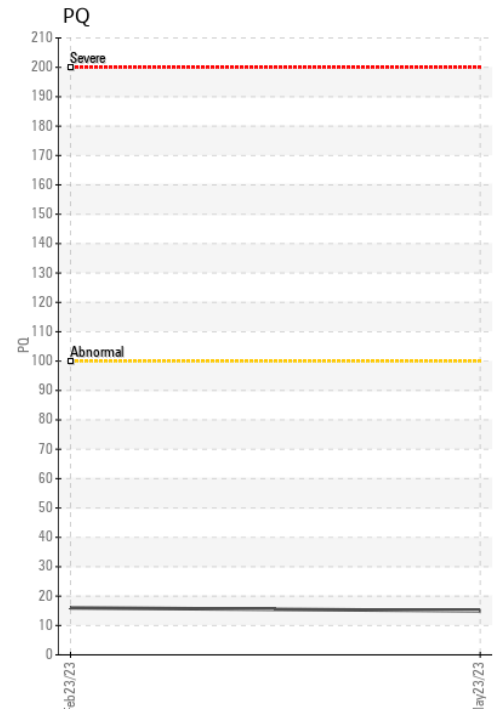
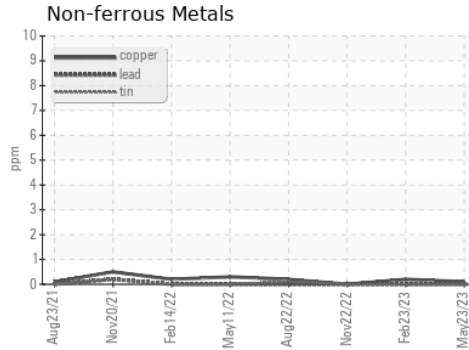
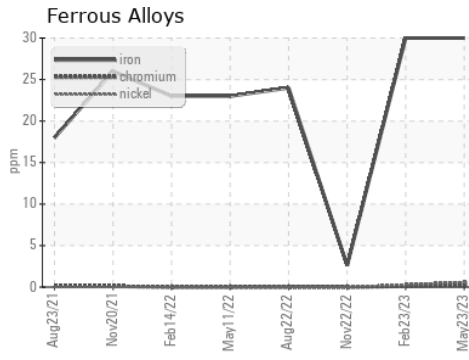
SAMPLE IMAGES		method	limit/base	current	history 1	history 2
---------------	--	--------	------------	---------	-----------	-----------

Color



Bottom

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0095469 **Received** : 10 Jul 2023  
**Lab Number** : 05894579 **Diagnosed** : 11 Jul 2023  
**Unique Number** : 10550389 **Diagnostician** : Wes Davis  
**Test Package** : PLANT

**SDI - Steel Dynamics Inc. - Heartland**  
 455 West Industrial Drive  
 Terre Haute, IN  
 US 47802  
 Contact: BRAD ELLIS  
 brad.ellis@steeldynamics.com

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)

T:  
F: