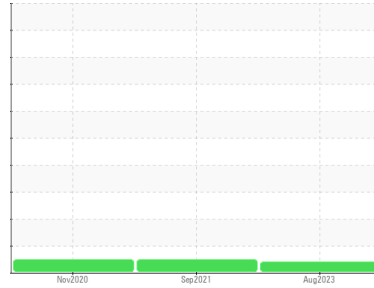


Machine Id  
**DR182**  
Component  
**Main Winch**  
Fluid  
**PETRO CANADA ENDURATEX EP 220 (27 LTR)**



**DIAGNOSIS**

- Recommendation**  
Resample at the next service interval to monitor.
- Wear**  
All component wear rates are normal.
- Contamination**  
There is no indication of any contamination in the oil.
- Fluid Condition**  
The condition of the oil is acceptable for the time in service.

**SAMPLE INFORMATION**

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>PC0078259</b>	PC0052338	PC0035413
Sample Date	Client Info	<b>07 Aug 2023</b>	14 Sep 2021	04 Nov 2020
Machine Age	hrs	<b>8159</b>	6463	7450
Oil Age	hrs	<b>0</b>	0	0
Oil Changed	Client Info	<b>Changed</b>	Changed	Changed
Sample Status		<b>ABNORMAL</b>	NORMAL	NORMAL

**WEAR METALS**

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m) >150	<b>27</b>	100	94
Chromium	ppm	ASTM D5185(m) >10	<b>&lt;1</b>	<1	1
Nickel	ppm	ASTM D5185(m) >10	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185(m) >5	<b>&lt;1</b>	<1	<1
Lead	ppm	ASTM D5185(m) >15	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185(m) >80	<b>5</b>	12	11
Tin	ppm	ASTM D5185(m)	<b>&lt;1</b>	2	<1
Antimony	ppm	ASTM D5185(m) >5	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)	<b>0</b>	0	0

**ADDITIVES**

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m) 60	<b>14</b>	19	12
Barium	ppm	ASTM D5185(m) 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m) 0	<b>&lt;1</b>	<1	<1
Manganese	ppm	ASTM D5185(m) 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185(m) 0	<b>6</b>	11	17
Calcium	ppm	ASTM D5185(m) 0	<b>8</b>	28	27
Phosphorus	ppm	ASTM D5185(m) 270	<b>432</b>	425	386
Zinc	ppm	ASTM D5185(m) 0	<b>15</b>	27	35
Sulfur	ppm	ASTM D5185(m) 11200	<b>4742</b>	5333	5053
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1

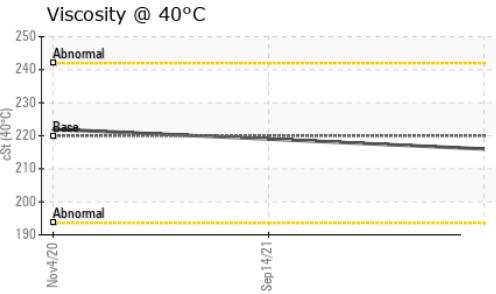
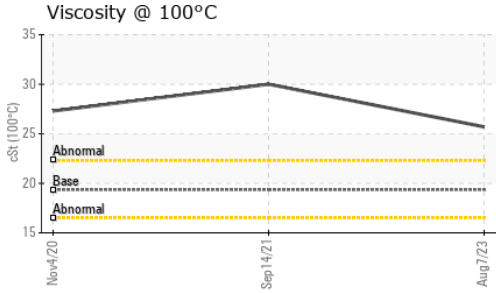
**CONTAMINANTS**

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m) >25	<b>2</b>	4	5
Sodium	ppm	ASTM D5185(m)	<b>&lt;1</b>	1	2
Potassium	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	1	<1

**VISUAL**

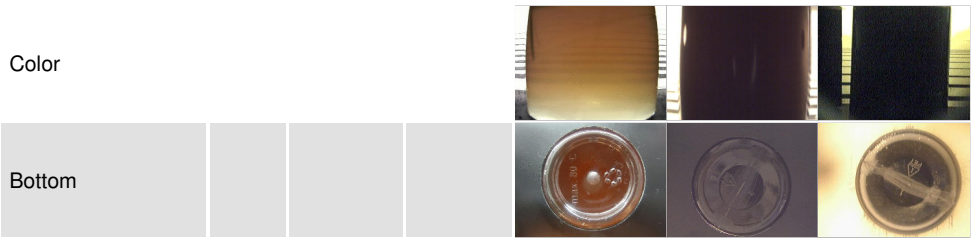
method	limit/base	current	history1	history2	
White Metal	scalar	Visual* NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual* NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	Visual* NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	Visual* NONE	<b>VLITE</b>	NONE	NONE
Debris	scalar	Visual* NONE	<b>VLITE</b>	NONE	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

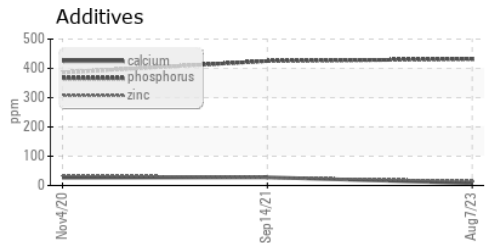
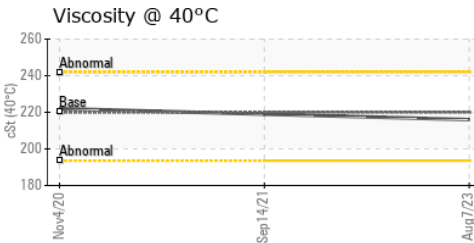
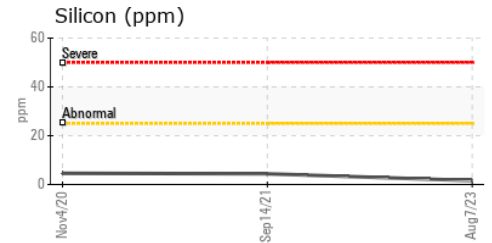
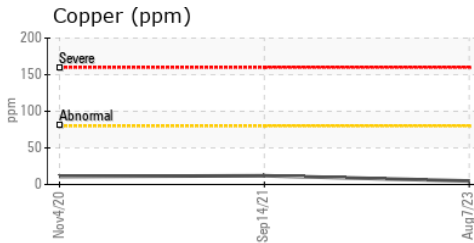
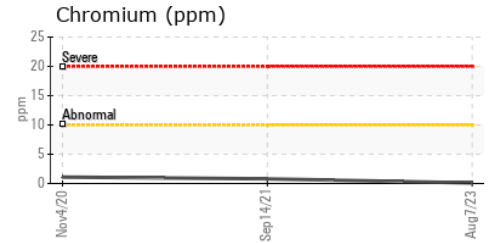
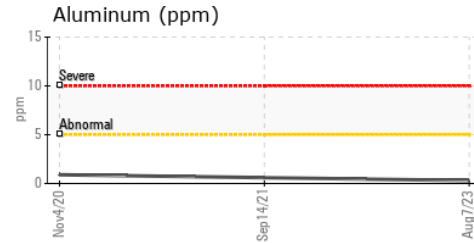
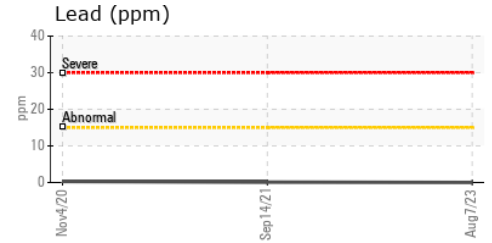
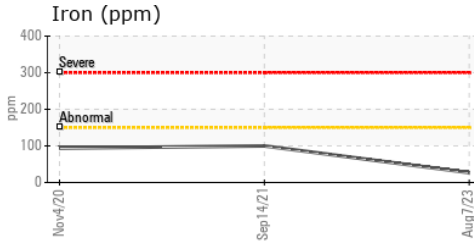


FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	220	<b>216</b>	219	222
Visc @ 100°C	cSt	ASTM D7279(m)	19.35	<b>25.7</b>	30.0	27.3
Viscosity Index (VI)	Scale	ASTM D2270*	99	<b>▲ 150</b>	178	158

SAMPLE IMAGES		method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Green Infrastructure and Partners Inc (GPI) - 286 - Shoring & Foundations  
**Sample No.** : PC0078259 **Received** : 28 Aug 2023 151 Ram Forest Rd,  
**Lab Number** : 02578866 **Diagnosed** : 29 Aug 2023 Stouffville, ON  
**Unique Number** : 5631926 **Diagnostician** : Kevin Marson CA L4A 2G8  
**Test Package** : MOB 1 ( Additional Tests: KV100, VI ) Contact: Shannon Abbott

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.

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 F: