

Machine Id
68HYDPACK020

Component
Gearbox
Fluid

PETRO CANADA ENDURATEX EP 460 (--- LTR)

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 history1 history2

Sample Number	Client Info	PC0053002	PC0062287	PC0051900
Sample Date	Client Info	31 Oct 2023	16 May 2023	08 Nov 2022
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		NORMAL	NORMAL	NORMAL

WEAR METALS method limit/base current history1 history2

PQ	ASTM D8184*		0	0	0
Iron	ppm	ASTM D5185(m) >200	23	25	26
Chromium	ppm	ASTM D5185(m) >15	0	0	0
Nickel	ppm	ASTM D5185(m) >15	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	0	0	0
Silver	ppm	ASTM D5185(m)	<1	0	0
Aluminum	ppm	ASTM D5185(m) >25	0	<1	<1
Lead	ppm	ASTM D5185(m) >100	<1	<1	<1
Copper	ppm	ASTM D5185(m) >200	<1	0	0
Tin	ppm	ASTM D5185(m) >25	0	0	0
Antimony	ppm	ASTM D5185(m) >5	0	0	<1
Vanadium	ppm	ASTM D5185(m)	0	0	0
Beryllium	ppm	ASTM D5185(m)	0	0	0
Cadmium	ppm	ASTM D5185(m)	0	0	0

ADDITIVES method limit/base current history1 history2

Boron	ppm	ASTM D5185(m) 55	15	12	11
Barium	ppm	ASTM D5185(m) 0	<1	0	0
Molybdenum	ppm	ASTM D5185(m) 0	0	0	0
Manganese	ppm	ASTM D5185(m) 0	0	<1	<1
Magnesium	ppm	ASTM D5185(m) 2	0	0	0
Calcium	ppm	ASTM D5185(m) 6	10	12	12
Phosphorus	ppm	ASTM D5185(m) 240	235	246	236
Zinc	ppm	ASTM D5185(m) 3	2	2	3
Sulfur	ppm	ASTM D5185(m) 10310	9504	10506	10342
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

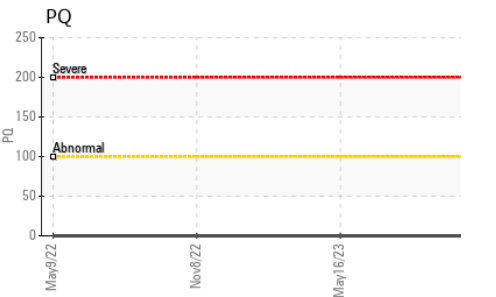
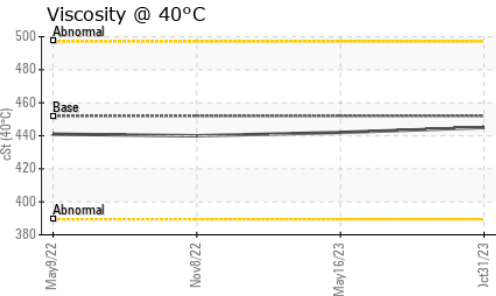
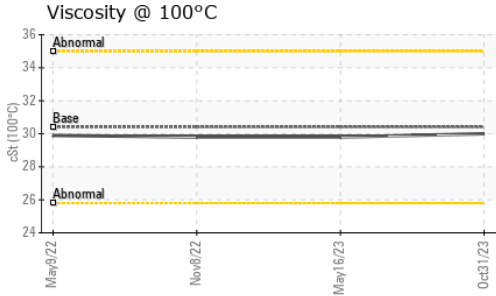
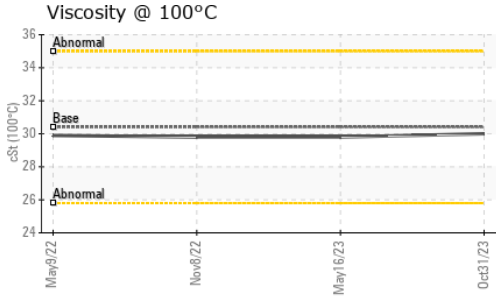
CONTAMINANTS method limit/base current history1 history2

Silicon	ppm	ASTM D5185(m) >50	1	1	1
Sodium	ppm	ASTM D5185(m)	2	2	3
Potassium	ppm	ASTM D5185(m) >20	0	0	<1

FLUID DEGRADATION method limit/base current history1 history2

Acid Number (AN)	mg KOH/g	ASTM D974* 0.5	0.59	0.58	0.53
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OIL ANALYSIS REPORT

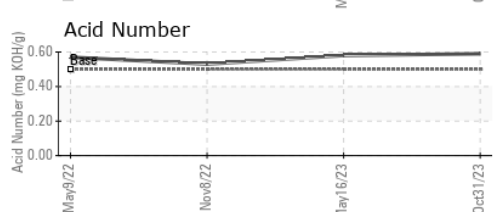
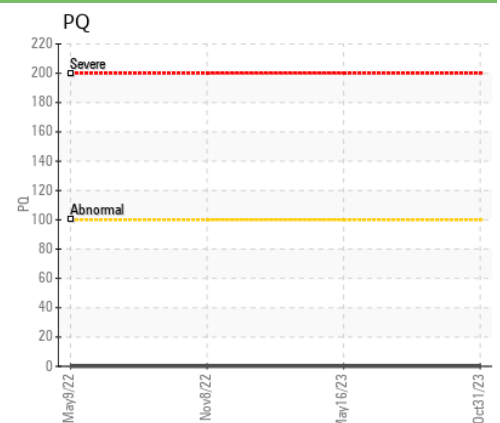
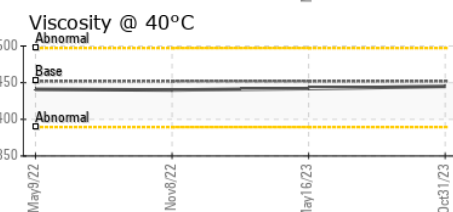
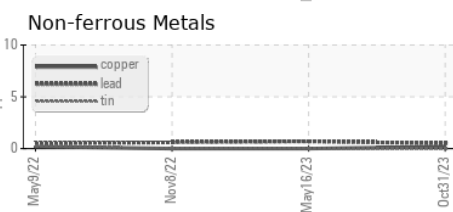
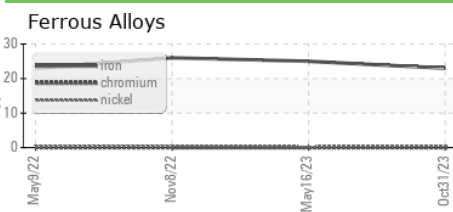


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	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	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	452	442	440
Visc @ 100°C	cSt	ASTM D7279(m)	30.41	30.0	29.8
Viscosity Index (VI)	Scale	ASTM D2270*	97	95	96

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0053002 **Received** : 01 Nov 2023
Lab Number : 02593406 **Diagnosed** : 02 Nov 2023
Unique Number : 5670485 **Diagnostician** : Wes Davis
Test Package : IND 2 (Additional Tests: KV100, TAN Man, VI)

Glencore Canada – Fraser Mine
 85 Regional Road 8
 Onaping, ON
 CA P0M 2R0
 Contact: Marc-Andre Marseille
 marcandre.marseille@dmcmining.com

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.