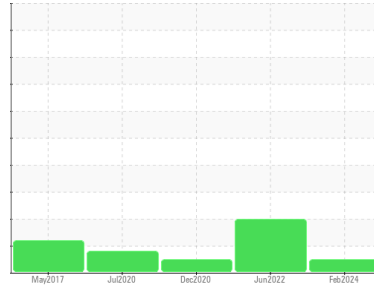




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id PEM INSERTER PRESS

Component
Hydraulic System

Fluid
PETRO CANADA HYDREX AW 32 (26 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

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			WC0905521	WC0597200	WC0371736
Sample Date	Client Info			08 Feb 2024	15 Jun 2022	01 Dec 2020
Machine Age	yrs	Client Info		0	7	0
Oil Age	yrs	Client Info		0	0	0
Oil Changed	Client Info			N/A	N/A	N/A
Sample Status				NORMAL	ABNORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>0.05	NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	2	1	<1
Chromium	ppm	ASTM D5185(m)	>20	0	0	0
Nickel	ppm	ASTM D5185(m)	>20	0	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	<1	<1	<1
Lead	ppm	ASTM D5185(m)	>20	<1	1	<1
Copper	ppm	ASTM D5185(m)	>20	8	8	8
Tin	ppm	ASTM D5185(m)	>20	0	0	<1
Antimony	ppm	ASTM D5185(m)		0	<1	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0

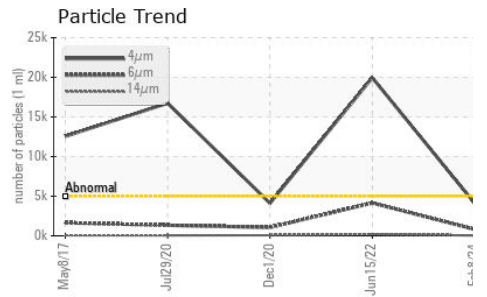
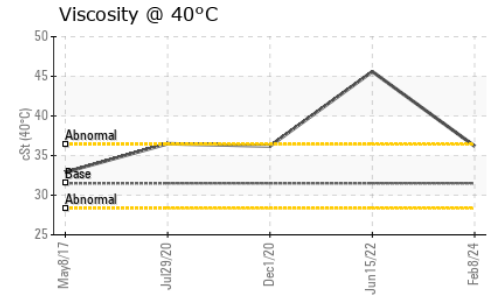
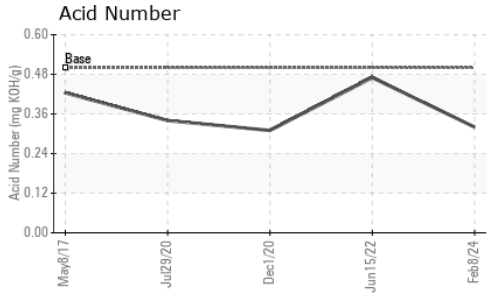
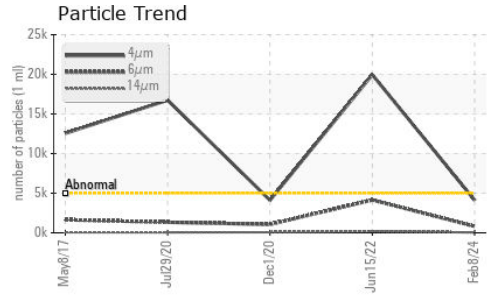
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	<1	4	<1
Barium	ppm	ASTM D5185(m)	0	1	1	2
Molybdenum	ppm	ASTM D5185(m)	0	0	0	0
Manganese	ppm	ASTM D5185(m)	0	0	0	0
Magnesium	ppm	ASTM D5185(m)	0	<1	<1	<1
Calcium	ppm	ASTM D5185(m)	50	114	102	116
Phosphorus	ppm	ASTM D5185(m)	330	279	300	268
Zinc	ppm	ASTM D5185(m)	430	330	312	361
Sulfur	ppm	ASTM D5185(m)	760	1994	2177	1960
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	<1	1	2
Sodium	ppm	ASTM D5185(m)		<1	<1	<1
Potassium	ppm	ASTM D5185(m)	>20	<1	1	<1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	4111	▲ 19947	4114
Particles >6µm		ASTM D7647	>1300	813	▲ 4143	1061
Particles >14µm		ASTM D7647	>160	41	● 191	71
Particles >21µm		ASTM D7647	>40	9	28	11
Particles >38µm		ASTM D7647	>10	2	1	0
Particles >71µm		ASTM D7647	>3	1	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	19/17/13	▲ 21/19/15	19/17/13



OIL ANALYSIS REPORT

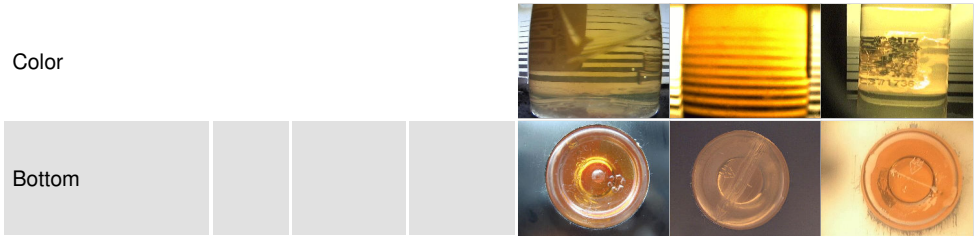


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.50	0.32	0.47	0.31

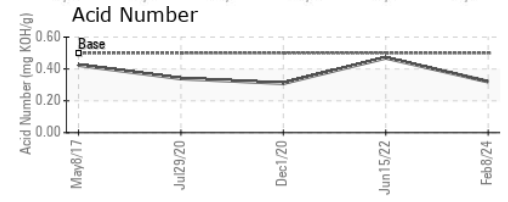
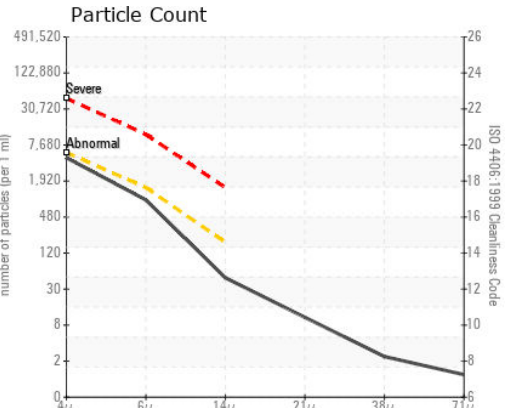
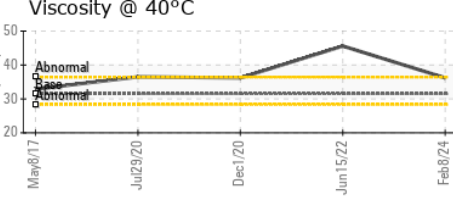
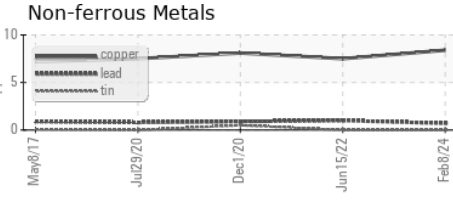
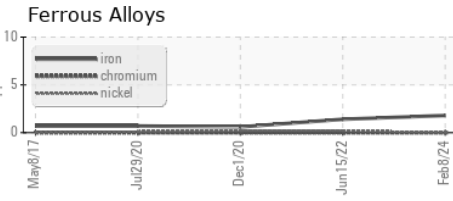
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	VLITE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.05	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	31.5	36.2	▲ 45.6	36.2

SAMPLE IMAGES		method	limit/base	current	history1	history2
---------------	--	--------	------------	---------	----------	----------



GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0905521 **Received** : 18 Mar 2024
Lab Number : **02622677** **Tested** : 19 Mar 2024
Unique Number : 5747796 **Diagnosed** : 19 Mar 2024 - Wes Davis
Test Package : IND 2

LARSEN & SHAW LTD
 575 DURHAM ST. WEST
 WALKERTON, ON
 CA N0G 2V0
 Contact: Derek Kuntz
 dkuntz@larsenhinge.com
 T: (519)881-1320
 F: 519883593

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.